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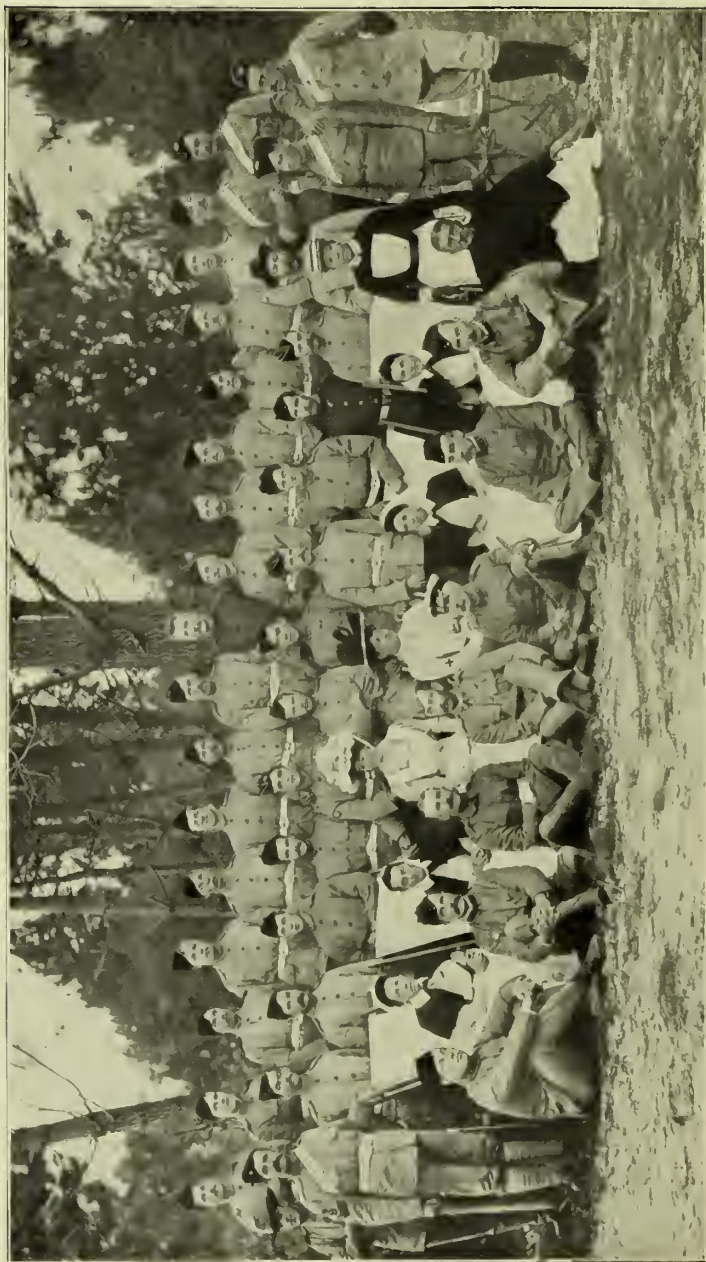
REPORT OF THE COMMITTEE OF
THE PORTLAND HOSPITAL



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PERSONNEL AT RONDEBOSCH.

[Frontispiece.]

REPORT

OF THE

Committee of the Portland Hospital

in South Africa



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LONDON
JOHN MURRAY, ALBEMARLE STREET

1901



Committee of the Portland Hospital

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The EARL OF DERBY, K.G.

Vice-Presidents.

ADELINE, DUCHESS OF BEDFORD. | The DUKE OF PORTLAND, K.G.

Hon. Treasurer.

J. L. LANGMAN, Esq.

Hon. Secretary.

Major-General The Hon. H. EATON.

Committee.

The DUCHESS OF BUCCLEUCH.

The DUCHESS OF WESTMINSTER.

The DUCHESS OF ST ALBANS.

The COUNTESS GROSVENOR.

The COUNTESS SOMERS.

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J. WERNHER, Esq.

CAPTAIN J. BAGOT, M.P.

E. CLIFFORD, Esq.

DR W. J. COLLINS.

INTRODUCTION

To the Committee of the Portland Hospital.

THE following is the Report which is issued in accordance with the resolution passed at a meeting of the Committee on 10th November 1900—"That an illustrated Report should be published of the working of the Portland Hospital in South Africa." The compilation of this was left to a Sub-Committee formed as follows :

Her Grace ADELINE, DUCHESS OF BEDFORD.

Mr ANTHONY BOWLBY, F.R.C.S.

Dr HOWARD TOOTH, M.D., F.R.C.P.

Surgeon-Colonel C. R. KILKELLY, Grenadier Guards.

And Major-General The Hon. H. EATON, *Secretary*.

It is divided into three heads as follows :

1st. Report from the Duchess of Bedford on the origin of the scheme and first propositions as to the formation of the hospital.

2nd. A Report from the Secretary, which is naturally brief, being a statement of the equipment and organisation of the hospital, with list of subscribers, statement of expenditure from the Treasurer, inventories of equipment, and complete list of staff and personnel.

3rd. A report of the work of the Portland Hospital by the Medical Staff.

HERBERT F. EATON, Major-General,
Secretary.

LONDON,
April 1901.



ORIGIN OF THE SCHEME

A FEW words concerning the origin of the scheme which led to the formation of the Portland Hospital will not, I think, be without special interest and importance in view of the fact that the movement in favour of voluntary hospitals thus received its first impetus :—

The Boer War, which has developed into so momentous a struggle, opened (as every one will remember) on 11th October 1899, and a few days later a letter written to *The Times* by Mr George Stoker suggested the advisability of providing ambulances, or movable hospitals, supported by voluntary efforts, in order to supplement the provision for the sick and wounded made by the official department in connection with the War Office.

Mr Stoker wrote with experience on the subject, having taken charge of an ambulance during the Zulu War of 1879, and his arguments aroused the attention of Mrs Josceline Bagot, who promptly resolved to give practical shape to the suggestion. This lady had long been interested in measures for the relief of the sick and suffering, and her appeal was generously responded to. On receiving promises of financial help sufficient to start the enterprise, a provisional Committee was formed, and met at 26 Hertford Street, on 22nd November 1899, to consider the work of organisation.

This was by no means an easy task as there was no precedent which would serve for our guidance under the existing conditions. Mr Stoker placed his varied experience at our service, and, as the subsequent reports show, the proposal took a highly practical shape and effected a most beneficial work on behalf of the sick and wounded.

In considering the initiation of a scheme of this nature, it is interesting to note the combinations of various elements which eventually ensure success. Without paradox it may perhaps be said that the obstacles which encounter the development of any movement are among the most valuable of these elements. The mere fact that a private undertaking entered the lines hitherto reserved to official organisations is sufficient to explain the existence of some difficulty in the earlier stages, but common sense and good-will were not absent on either side, and a working scheme was speedily set on foot.

The promoters of the Portland Hospital may be said, without arrogating to themselves any undue importance, to have set the type of the voluntary hospitals which subsequently became so marked a feature in the war. Although on a small scale compared with the Base Hospital at Deelfontein, organised by the Imperial Yeomanry Hospital Committee, this larger organisation followed on the general lines adopted by the Portland Hospital. This was also the case in regard to the Welsh, Scotch, Irish, Langman, and other voluntary efforts.

Amid the desolation, misery, and suffering entailed by the war, we cannot but dwell with thankfulness on the courageous sacrifices made on behalf of the sufferers by those who devoted themselves to their relief. It is very good to remember that all classes have taken a share in this work, and that none have grudged any labour in the cause. The simple desire to do what they could, and to do it well, has alone guided the friends and fellow-workers who, in many varying ways, and with large differences of opportunities of service, sent forth the Portland Hospital to South Africa on its mission of mercy.

ADELINE BEDFORD,
Vice-President.

SECRETARY'S REPORT

HAVING been invited by Captain Bagot to act as Secretary in England, when the idea to send out a Field Hospital to aid the military authorities in South Africa was originally formed by Mrs Bagot and Mr Stoker, and subsequently by the Duke of Portland when he became interested in it, I accepted the post, and my duties as Secretary and my connection with the hospital may be said to have commenced on the 1st December 1899, when a Committee Meeting was held. At this meeting it was resolved that the hospital should be called the "Portland Hospital," in consequence of the generous support which had been given to it by His Grace. It was also decided that the further organisation and arrangements for the equipment should be left to the Secretary and the Medical Officers, who, with one exception, had already been selected by Sir Thomas Smith, Bart., the eminent surgeon, to accompany the hospital, and were: Mr Anthony Bowlby, F.R.C.S., of St Bartholomew's Hospital, Dr Howard Tooth, M.D., F.R.C.P., of St Bartholomew's Hospital, and Mr Cuthbert Wallace, M.B., F.R.C.S., of St Thomas's Hospital.

Mr Calverley, M.B., B.S., was selected at the meeting as the fourth Medical Officer in the place of Mr Stoker, who resigned in consequence of some compulsory alterations that had been made in the nature of the hospital by the Army Medical Department. We had the assistance of Mr Oliver Williams, and I may here state that the services of this gentleman have been invaluable, and to his untiring energy and interest in all matters connected with the hospital at home, I attribute very largely

the success attained in the initial equipment and subsequent despatch of supplies and stores. As the time was short and much had to be done in the thirteen days that intervened before the hospital was to embark on board the hired transport *Majestic*, of the White Star Line, at Liverpool, the Medical Officers and Secretary with Mr Williams met every morning at the Secretary's house to make the necessary arrangements. To Mr Bowlby, the Senior Surgeon, with Mr Cuthbert Wallace, was left the ordering of the surgical instruments and appliances that they considered necessary, Dr Tooth and Mr Calverley undertaking the purchase of the medical stores and drugs. The Committee at this time were most fortunate in obtaining the services of Surgeon-Colonel C. R. Kilkelly, Grenadier Guards, to whom permission had been granted by the War Office to accompany the hospital as military medical officer in charge. This officer was at the time in charge of the hospital at the Guards' Depôt at Caterham, and, having to do his duty there until another officer could be found to relieve him, his work was rendered doubly hard for the first few days. Having so recently been employed on active service with the 1st Battalion Grenadier Guards in the Soudan Campaign, under Lord Kitchener, his experiences and knowledge of the requirements of a hospital were of the greatest service to the Committee.

It had been decided by the military authorities that the hospital should be equipped as a section of a Base Hospital, with accommodation for 4 officers (this number was subsequently increased to 30) and 100 non-commissioned officers and men (increased to 130), and that it should be entirely subservient to any military orders that it might receive while in South Africa. Every assistance and advice was given at this time to the Committee by Dr Jameson, C.B., Director-General of the Army Medical Department, and Colonel Gubbins, R.A.M.C., until the latter officer was ordered himself to South Africa.

As it was thought possible that a sufficient number of hospital marquees might be available from the stores in Cape Town, a cable was despatched making inquiries ; but to prevent any disappointment and subsequent delay, tents were provisionally ordered from the Tortoise Tent Company. This proved to be a wise precaution, as not only were marquees not procurable, but the tortoise tents proved superior in every respect to the regulation hospital marquees, their great merits being that they were both lighter to carry, better ventilated, and consequently cooler, and afforded better accommodation from their square shape. Beds and mattresses had been ordered by Mr Stoker from Harrod's Stores, as also had ten waggons from the Gloucester Waggon Company, and these were sent with the necessary harness for a team of four mules. A portion of the waggons not being required were subsequently sold in Africa to the Imperial Yeomanry Hospital. (See Appendix H.)

Lord Henry Bentinck and Captain J. Bagot, who were going out with the hospital as Treasurer and Secretary in South Africa, undertook the ordering of the stores for the officers' mess, and these, in addition to the articles of camp furniture that were required, including tables, chairs, etc., a list of which will be found in the Appendix, were supplied by the Army and Navy Stores. (Appendices I and K.)

A Sub-Committee, with Her Grace Adeline, Duchess of Bedford, at its head, had selected the four nursing sisters they considered most suitable for the hospital, namely, Miss Edith Pretty, Miss Frances Russell, Miss A. M. Davis, and Miss Rachael A. Cox Davies, and these ladies were subsequently, by special permission of H.R.H. the Princess Christian of Schleswig-Holstein, President of the Army Nursing Reserve, enrolled in that body, and agreed to accept service on the conditions laid down in the regulations for these nurses.

The orderlies were, with two exceptions, supplied by the St John's Ambulance Brigade, and the warmest thanks

of the Committee are due to Colonel Bowdler, the Commandant, for his great assistance in providing these men, and his judicious selection of them. I may mention that they were specially selected for their several qualifications, one being a telegraphist, another a farrier, another a carpenter, etc., as it was thought most desirable that they should be representatives of various trades, and that the Committee were wise in their suggestions subsequent events proved. The number of the St John's Ambulance men was 26, and included 4 supernumerary officers, 10 first grade orderlies, and 12 second grade orderlies; there were in addition 2 ex-R.A.M.C. men (Boyd and Heaton), who were attached to the first grade.

One staff-sergeant and 1 sergeant, on full pay, of the R.A.M.C., were specially attached to the hospital by the Army Medical Department, and 1 private Grenadier Guards was allowed to go as servant to Surgeon-Colonel Kilkelly. In addition there were 1 cook, 1 assistant cook, 2 male servants, and 2 women servants for the nurses. (See Appendix A for full list of staff and personnel).

As the St John's Ambulance men came from various parts of the country (three coming from Welbeck Abbey), Colonel Bowdler made arrangements for housing and feeding the men while in London at a cost of 3s. 6d. per man per diem, and with the help of his staff he most kindly undertook to clothe the men, each receiving the uniform of the St John's Brigade and a suit of Khaki, and being given every advice as to what extra clothing they should provide themselves with.*

The whole of the staff were required to sign a form of contract, stating their several rates of pay and length of service, which originally was for six months from the date of embarkation from England.† It was also specially

* We have subsequently proved that a man can be provided with a complete equipment, including two suits, overcoat, etc., at a cost of about £7.

† I should strongly advocate that in similar contracts in future the minimum period should be for twelve months.

stated that in the event of the decease of any one of them, that his or her relations should have no claim on the Committee. When it was found later that their services would be required for a longer period than six months they were asked to extend it for a further term of three months, to which they all, with one exception, agreed.

To cover any pension that might accrue to any of the staff from accident or injury, a policy of insurance was taken out, based on the army rate of pension at an average of £18 per man per annum.*

Every possible assistance was given to the Committee by Major Cowans (now Lieut.-Colonel), A.A.G., who was in charge of the transport arrangements at the War Office, and it was decided that the whole of the personnel and baggage should be sent by the *Majestic*, sailing on 13th December from Liverpool, though it was found impossible to send the nurses at the Government expense. Mr William Wright was sent by Mr Williams to Liverpool to collect the various packages as they arrived, great care having been taken that all cases should be marked on two sides, and numbered and lettered, so that their contents could be easily identified, and in addition they were marked with the distinguishing black and white badge (the Duke's colours) of the hospital. Unfortunately the amount of baggage was found to be more than the *Majestic* with her other cargo had accommodation for, and, accordingly, a large portion of it had to be transferred to Southampton for shipment on other vessels, viz., the transport steamers *Victorian* and *Cestrian*, which naturally caused some delay in its arrival in South Africa.

In consequence of the decision of the War Office not to send out the nurses at Government expense, passages were taken on the Mail Steamer *Tantallon Castle*, sailing on 9th December from Southampton, for them, at the

* Subsequently all persons serving in voluntary hospitals were placed by the Government on the same footing as regards pensions as the regular troops.

expense of the hospital, and Lord and Lady Henry Bentinck and Captain and Mrs Bagot decided to accompany them, paying their own passages.

Mr J. L. Langman had from the start kindly undertaken the office of Honorary Treasurer, and the Committee are much indebted to him and his staff for their very valuable assistance. All bills have been paid by him on receipt of certified vouchers from the Secretary, which were attached to them. In addition, arrangements were made by which the staff could apportion any part of their pay to their relatives at home, and these have been regularly paid by the Treasurer each month. Each member of the staff was allowed, if he so wished, to draw one month's pay in advance before leaving England. (See Treasurer's statement of accounts). In addition to the many subscriptions in money that were raised (see Treasurer's list), including £5000 from the Duke of Portland, £1000 from Lord H. Bentinck, £500 from Lord Derby, and £500 from Mr Wernher, the Committee were indebted to many ladies and gentlemen, a list of whom it is impossible to give in so condensed a report, for many gifts of medical comforts, luxuries, tobacco and pipes, cushions, tea, warm clothing, Bovril, mineral waters, etc., which proved of great value to the hospital; the Countess of Bective, Lady Young, Mrs Anthony Bowlby, and Mrs Lewis James, and several ladies in Westmoreland, including Mrs Argles, Miss Cropper, Mrs Hamilton, Mrs Price, and Miss Hornby, being especially energetic in this way, and in raising money for the purpose.*

The Committee were also indebted to Mr Churchill, Grenadier Guards, for the loan of a Röntgen Ray apparatus.

The Duke of Portland had kindly lent his stables in Grosvenor Square, which formed a useful dépôt for the collection of small articles and presents, and it was here, on

* Subsequently £1000 was contributed by the Lord Mayor of London from his discretionary fund.

the 8th December, that the St John's Ambulance Brigade was inspected, the general appearance and good physique of the men giving the greatest satisfaction to the ladies and gentlemen of the Committee who were present.

At midnight, on the 12th December 1899, the orderlies, under Surgeon-Colonel Kilkelly, were seen off by Mr Williams and myself, from Euston, where a large number of friends and relatives had congregated to bid farewell and wish "God speed" to those who had so gallantly volunteered to meet unknown risks in their wish to render help to their wounded and invalided countrymen. On their arrival on the following morning at Liverpool, a hot breakfast had been ordered for them to be ready in the London and North-Western Railway Hotel, previous to their embarkation. Thanks are due to the officials of the L. and N.-W. R. Co., who had most considerably made every arrangement for their convenience and comfort while travelling, as well as for that of the Medical Officers, who had preceded the men by an afternoon train.

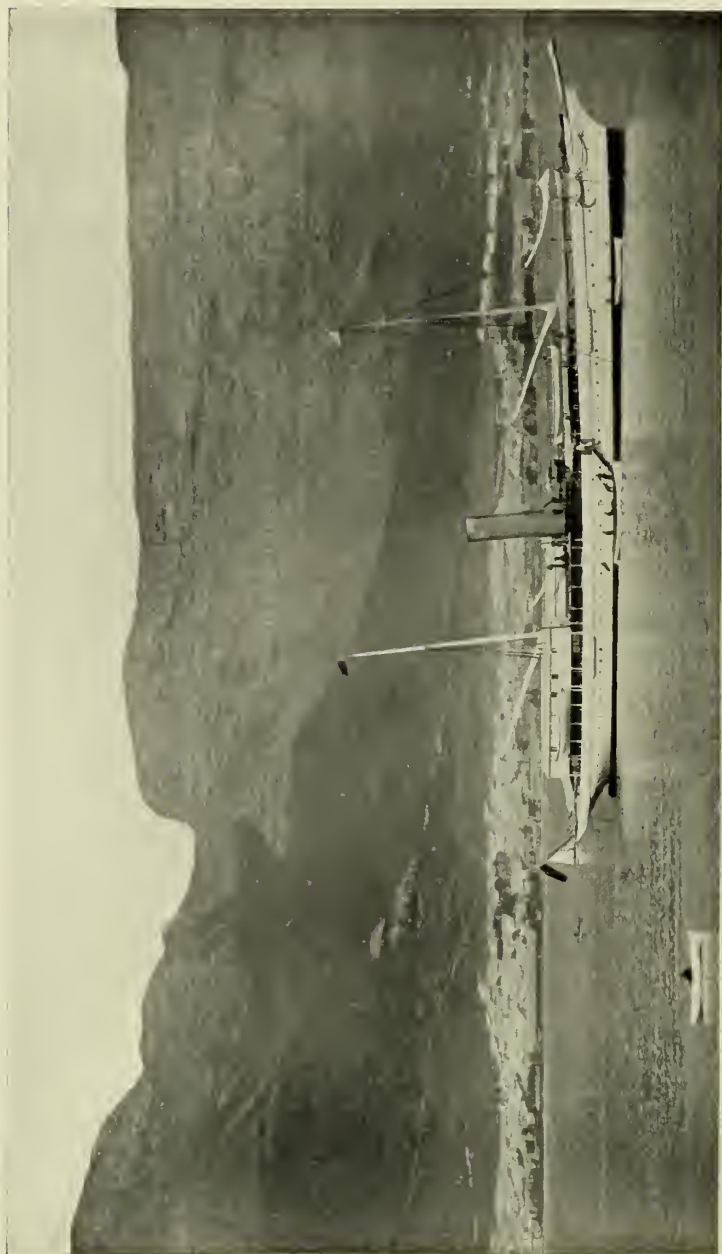
The Duke of Portland went to Liverpool on the 13th to wish them good-bye, and had sent a generous supply of pheasants for consumption on board, which kindly interest in their departure was appreciated by all.

With the exception of one or two incidents I should like to mention, my report practically ceases at the departure of the hospital from England, as I should be encroaching on that of the Medical Staff were I to describe the doings of the hospital after this date. The home work consisted mainly in attending to the request for money and supplies from time to time, and supplying the information that was received both to the press and to the relations of the staff and patients. A code cable address was registered both in London and in Cape Town by which cable communications were cheapened and accelerated; all matters of interest were at once sent to relations at addresses left by the various members of the staff, as also were messages that were sent by patients

who were desirous that their conditions should be communicated. Notices were sent to the press on receipt of the weekly reports from Surgeon-Colonel Kilkelly, which were received regularly after the hospital was established. These reports contained the weekly list of admissions to and discharges from the hospital, and proved to the satisfaction of all concerned the good work done. At the end of March, when the weekly return showed that the general advance had resulted in a great diminution of the number of cases admitted, it was a matter of much congratulation to hear, in response to a telegram from the Duke of Portland, that Lord Roberts had ordered the hospital to Bloemfontein, and to know that it arrived there when hospitals were most needed. And the subscribers will be glad to hear that the request of the Medical Staff that the Portland Hospital might be maintained beyond the time for which it had been sent out, was responded to by the Duke of Portland, who gave his guarantee for any expense that might be incurred by keeping it in Africa till July.

One subject I should like to mention is the reason for the return of the hospital in August. It will be remembered that the orderlies and nurses had arranged to stay on so as to complete a term of nine months, and that some of the staff and nurses were also bound to return to England in September, by which time the nine months would have been completed. When, therefore, in July the hospital had become very empty, Lord Roberts was asked whether he wished it to remain in South Africa and go to Pretoria, to which he replied that it had been decided to send no more hospitals to the Transvaal; so that, as in the opinion of the Surgeon-General there was no need for the hospital to remain in the Free State, where there was now plenty of accommodation and little sickness, it was arranged with the military authorities that some of the staff should return to England in August in charge of invalids on a hospital ship. In accordance with this decision, a cable was received on 12th July announcing that the hospital was to





THE YACHT "RHOUMA."

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leave Bloemfontein and to embark on 1st August on board the *Canada*. I have thought it right to mention this in case any of the subscribers may have heard a rumour that was circulated that the hospital was returning owing to the want of funds; the balance, as shown in the balance-sheet, is a sufficient refutation of this statement, and, in addition, the Duke of Portland and other generous subscribers had promised increased subscriptions if they were needed.

It was with great sorrow that the cable announcing the death of Henry James Borer, one of the St John's Ambulance Brigade orderlies, from enteric fever, was received, and the sad news was at once sent to his parents. Private Borer had rendered most excellent service, and was exceptionally well reported on. At the request of his friends in Caterham, where he lived, it was decided to grant £20 towards the memorial they were proposing to erect in his memory, which was to take the useful and suitable form of erecting an ambulance station in the neighbourhood.

To the regret of all the staff, Surgeon-Colonel Kilkelly was unable to return with them, as he was ordered to Pretoria to take charge of the Imperial Yeomanry Hospital there; but they embarked as stated on the 1st August, arriving at Southampton on 18th August, when, with Mr Langman and Mr Williams, I met them to welcome them home on behalf of the Committee. Arrangements had been made to give them a special welcome and luncheon on arrival in the landing shed, and warrants had been obtained by which each person could proceed home at once at Government expense, and in addition they each received £2 for their immediate wants. The conduct of all had been as exemplary on the homeward voyage as in the field, they having been detailed to attend to the invalids on board the transport.

I must also mention the great kindness of Mr Bullough, who from time to time received many convalescent patients from the hospital on board his yacht the *Rhouma*,

at Cape Town, by which the men were greatly benefited ; and from reports received, nothing could have exceeded the care and attention that they received from one and all of his crew. Two of the yacht hands volunteered, and were allowed to go to Bloemfontein with the hospital, to replace two of the orderlies who were temporarily incapacitated through suffering from enteric fever.

It will, I am sure, be a source of the greatest satisfaction to all the subscribers to know with what assiduity the work of the hospital was carried on by all the medical officers, nurses, and orderlies, one and all vying with each other to keep up the reputation of the hospital, especially through the trying time of the epidemic of enteric fever at Bloemfontein, when the accommodation was tried to the utmost, and there were nearly double the established number of patients under treatment ; at this time there were two additional nurses, Sisters Carston and Godfrey from New Zealand, and subsequently Sister Harland, attached to the hospital, whose services were invaluable. It is also gratifying to realise that the good services of all were appreciated and recognised by the Commander-in-Chief and all in authority who came into contact with the hospital. The fact that Mr Bowlby and Dr Tooth were on several occasions asked to visit other hospitals is a proof in what estimation the Medical Staff was held, and if further confirmation of the success achieved were necessary, it would be found in the numerous letters received from time to time from grateful relations of the patients, expressing their thanks for the care and attention bestowed on them, and still more in the complimentary valedictory order that was issued on the departure of the hospital, thanking all for their services.

I hope it will not be thought presumption on my part if, in conclusion, I say that the originators of this philanthropic scheme of despatching a privately equipped hospital to the theatre of war may be justly proud of their efforts, as the Portland Hospital proved the pioneer of many



WARD ON BOARD THE "RHOUMA."

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other similar hospitals, which were equally generously sent out, and were all worked on the same lines, and have been the means of alleviating the sufferings of so many gallant countrymen, both of the Imperial and Colonial troops, who have been wounded and invalided in the service of their Queen and country.

A somewhat hurried meeting of the Committee was called on 10th November 1900, as it was important that the question of granting further gratuities should be decided, and some resolution passed as to the Report that should be issued. It was unanimously agreed that an additional gratuity of £20 should be given to each nurse, and one month's pay to the orderlies and servants for their exemplary services, and, as before stated, it was determined to publish this illustrated Report. It is hoped this will be approved of by the subscribers, and that it will serve as an interesting memento of the hospital, as well as a useful guide in the event of a similar hospital being equipped at some future time.

One brief summary, and my task is completed. It will be seen from the weekly reports that the total admissions to the hospital were 81 officers and 1009 non-commissioned officers and men, of whom only 2 officers and 33 men died, notwithstanding that a large number of the most serious enteric fever cases were transferred to the Portland Hospital from other hospitals during the epidemic at Bloemfontein, a percentage of a little over 3 per cent., and this at a cost of about £10 per patient, a record that I feel sure would compare favourably with that of any metropolitan hospital, and I hope it will prove to the satisfaction of the subscribers that the funds were as carefully looked after as were the patients.

HERBERT F. EATON, Major-General,
Secretary, Portland Hospital.

RECEIPTS AND PAYMENTS BY

RECEIPTS.

DONATIONS AS PER LIST APPENDED	£13,648	0	3			
Less 20% of Donations returned to Donors:—						
Walter Palmer, Esq.	£42	0	0			
R. W. Hudson, Esq.	£20	0	0			
		62	0	0		
at their desire under proposal contained in Committee's Circular.		£13,586	0	3		
INTEREST ON DEPOSIT			51	10	3	
SALE OF COPIES OF REPORT				0	12	0

It was resolved at the Committee's final meeting that in addition to the £500 given to Lady Charles Bentinck's Fund and £600 to the Soldiers' and Sailors' Help Society to permanently endow a bed in one of their homes, the balance as shown above (less any subsequent charges, which will include about £200 for printing the Report, etc.), should be presented to the general funds of the Soldiers' and Sailors' Help Society.

JOHN L. LANGMAN,
Hon. Treasurer.

£13,638 2 6

THE TREASURER—MAY 1901

PAYMENTS.

HOSPITAL EQUIPMENT :—

Ambulance Waggon, etc.	£826	2	6
Tortoise Tents, etc.	554	5	0
Medical and Surgical Appliances, Filter, Rontgen Ray Apparatus, etc.	888	19	11
Bedsteads, Blankets, Linen, Hardware, Crockery, etc.	774	4	4
	£3,043	11	9
Less amount received for Sale of Equipment, etc., in South Africa	2,322	10	10
		£721	0 11

EXPENDITURE IN ENGLAND AS FOLLOWS:—

PROVISIONS, MESS STORES, AND HOSPITAL COMFORTS	£976	9	2
SALARIES, GRATUITIES, AND EXPENSES OF PERSONNEL :—			
Salaries of Medical Staff	£3,860	0	0
Salaries of Nurses	80	12	6
Wages of Orderlies	804	19	4
Gratuities (including £20 given to H. Borer Memorial Fund)	1,247	16	4
Allowances for Expenses to Nursing Staff prior to leav- ing England	66	0	3
Fares and Passages of Nurses (not provided by Govern- ment)	251	11	8
Insurance of St John's Ambul- ance Men	312	9	0
Clerical help, Stationery, Print- ing, Fares, and General Sun- dries	283	13	7
Packing, Carriage, Transport, and Insurance of Goods	237	11	7
	7,144	14	3
		8,121	3 5
Remittances to South Africa through the Bank for Service of the Hospital		1,852	6 10
		£10,694	11 2

SPECIAL APPROPRIATIONS, VIZ. :—

Donation to Lady Charles Bentinck's Fund for providing Clothing and Comforts for the Troops in South Africa—			
Out of General Donations	£300	0	0
Out of Donation from the Man- sion-House, 20% of £1000	200	0	0
	£500	0	0
Donation to the Soldiers' and Sailors' Help Society to endow a bed in perpetuity, to be known as the "Portland Hospital Bed"	600	0	0
		1,100	0 0
		£11,794	11 2
Cash at Bank and in hand, unexpended		1,843	11 4
		£13,638	2 6

LIST OF SUBSCRIPTIONS

Duke of Portland, K.G.	-	-	-	-	£5000	0	0
Lord Henry Bentinck	-	-	-	-	1000	0	0
Lord Mayor (Transvaal War Fund)	-	-	-	-	1000	0	0
Earl of Derby, K.G.	-	-	-	-	500	0	0
J. Wernher, Esq.	-	-	-	-	500	0	0
Kirkby Lonsdale Fund	-	-	-	-	300	0	0
Walter and Mrs Palmer	-	-	-	-	210	0	0
Worksop War Fund, per George Stewart, Esq.	-	-	-	-	200	0	0
Retford War Fund, per J. Smith, Esq.	-	-	-	-	200	0	0
"Farmers of the Oxenholme Hunt District," per J. W.							
Weston, Esq.	-	-	-	-	136	5	0
John L. Langman, Esq.	-	-	-	-	105	0	0
Thomas G. Gibson, Esq.	-	-	-	-	105	0	0
Per Duchess of Bedford—							
Adeline, Duchess of Bedford	-	-	-	-	£100	0	0
Anonymous	-	-	-	-	100	0	0
						200	0
Lord Manners	-	-	-	-	100	0	0
Hon. W. F. D. Smith, M.P.	-	-	-	-	100	0	0
Sir Chas. Seely, Bart.	-	-	-	-	100	0	0
Wm. Hall Walker, Esq.	-	-	-	-	100	0	0
E. Salvin Bowlby, Esq.	-	-	-	-	100	0	0
Duke of Northumberland	-	-	-	-	100	0	0
Carl Meyer, Esq.	-	-	-	-	100	0	0
Jacob Wakefield, Esq.	-	-	-	-	100	0	0
Sir John Dickson Poynder, Bart.	-	-	-	-	100	0	0
E. W. Beckett, Esq., M.P.	-	-	-	-	100	0	0
Anonymous	-	-	-	-	100	0	0
H. J. King, Esq.	-	-	-	-	100	0	0
Clement Wallace, Esq., of Buluwayo	-	-	-	-	100	0	0
Captain Bagot, M.P.	-	-	-	-	100	0	0
Captain F. Forester	-	-	-	-	50	0	0
Miss Emma Holt	-	-	-	-	50	0	0
Lindsay Fitzgerald, Esq.	-	-	-	-	50	0	0
Carry forward,					-	£11,006	5 0

LIST OF SUBSCRIPTIONS

25

Brought forward,	-	-	£11,006	5	0
R. W. Hudson, Esq.	-	-	-	50	0 0
General Sir Ch. L. d'Aguilar, G.C.B.	-	-	-	50	0 0
E. G. S. Hornby, Esq.	-	-	-	50	0 0
Anonymous	-	-	-	50	0 0
James Mason	-	-	-	50	0 0
Ernest Crewdson, Esq.	-	-	-	50	0 0
A. C. Harmsworth, Esq.	-	-	-	50	0 0
Per Earl of Hardwicke—					
Earl of Hardwicke	-	-	£50	0	0
Anonymous	-	-	10	0	0
Brinsley Fitzgerald, Esq.	-	-	50	0	0
				110	0 0
R. W. Hudson, Esq.	-	-	-	50	0 0
Mrs A. Harmsworth	-	-	-	50	0 0
Lord Windsor	-	-	-	50	0 0
Lady Young	-	-	-	50	0 0
Per James Cropper, Esq.—					
James Cropper, Esq.	-	-	£50	0	0
John Graham, Esq.	-	-	1	0	0
Levens Church Collection	-	-	5	0	0
				56	0 0
Henry E. Lindsay, Esq.	-	-	-	25	0 0
Thos. H. Rushton, Esq.	-	-	-	25	0 0
Archer H. Heywood, Esq.	-	-	-	25	0 0
Duke of Bedford	-	-	-	25	0 0
From a Friend	-	-	-	30	0 0
Countess of Brownlow	-	-	-	25	0 0
Earl Grey	-	-	-	25	0 0
Alfred de Rothschild, Esq.	-	-	-	25	0 0
Chas. J. Cropper, Esq.	-	-	-	25	0 0
Alfred Farquhar, Esq.	-	-	-	25	0 0
Regd. Chandos Pole, Esq.	-	-	-	25	0 0
Sir Thos. Glen-Coats, Bart.	-	-	-	25	0 0
Earl of Crewe	-	-	-	25	0 0
Countess of Bective	-	-	-	21	0 0
Sam Lewis, Esq.	-	-	-	21	0 0
Hon. Mrs Peel	-	-	-	20	0 0
Mrs Van Raalte	-	-	-	20	0 0
Mrs Haslam	-	-	-	20	0 0
Lord Wandsworth	-	-	-	20	0 0
John Deacon, Esq.	-	-	-	20	0 0
Carry forward,	-	-	£12,194	5	0

	Brought forward,	-	-	£12,194	5	0
E. Potter, Esq. -	-	-	-	-	20	0 0
A. Middleton, Esq. -	-	-	-	-	15	0 0
Hon. Mrs C. Fitzwilliam	-	-	-	-	15	0 0
Chas. Morley Saunders	-	-	-	-	10	10 0
Geo. R. Murray, Esq. -	-	-	-	-	10	10 0
Mrs Thomson -	-	-	-	-	10	10 0
Arnold & Sons -	-	-	-	-	10	10 0
Military Equipment Stores	-	-	-	-	10	10 0
Mrs Janet Little	-	-	-	-	10	0 0
Lord Harlech -	-	-	-	-	10	0 0
Sir Wm. Eden, Bart. -	-	-	-	-	10	0 0
Dowager Marchioness Downshire	-	-	-	-	10	0 0
Lady Sassoon -	-	-	-	-	10	0 0
Mrs Moorsom Maude -	-	-	-	-	10	0 0
H. B. Arkwright, Esq. -	-	-	-	-	10	0 0
Mrs Arkwright -	-	-	-	-	10	0 0
Mrs Agnew -	-	-	-	-	10	0 0
Mrs Ansdell -	-	-	-	-	10	0 0
Per Miss D. Roberts—						
Mrs Halim	-	-	-	£5	0	0
Miss D. Roberts	-	-	-	3	0	0
D. L. Hollins, Esq.	-	-	-	2	0	0
						10 0 0
Douglas Uzielli, Esq. -	-	-	-	-	10	0 0
Lady Mason -	-	-	-	-	10	0 0
Edw. Clifford, Esq. -	-	-	-	-	10	0 0
Miss L. Hill -	-	-	-	-	10	0 0
Wm. Younger, Esq., M.P.	-	-	-	-	10	0 0
Mrs M. Saunders	-	-	-	-	10	0 0
Anonymous, per Lady H. Bentinck	-	-	-	-	10	0 0
Alex. Peckover, Esq. -	-	-	-	-	10	0 0
Mrs Brocklehurst	-	-	-	-	10	0 0
Hon. G. R. C. Ormsby Gore	-	-	-	-	10	0 0
Miss Cropper -	-	-	-	-	10	0 0
Mrs Weston -	-	-	-	-	10	0 0
Mrs French -	-	-	-	-	10	0 0
Collected by Mrs Anthony Bowlby—						
Rev. and Hon. Hugh W. Mostyn	-	-	-	£2	0	0
Hon. Harriot Mostyn	-	-	-	10	0	0
Anonymous	-	-	-	5	0	0
						17 0 0
Carry forward,	-	-	-	£12,553	15	0

LIST OF SUBSCRIPTIONS

27

	Brought forward,	-	-	£12,553	15	0
Mrs Davis	-	-	-	-	10	0 0
Mrs H. Lindsay	-	-	-	-	8	10 0
Per Captain and Mrs Bagot—						
Members of Levens Welcome Club,						
Sec., — Gibson, Esq.	-	-	£10	0	0	
Children at Levens	-	-	1	5	0	
						11 5 0
Miss Tooth	-	-	-	-	8	0 0
Mrs Tooth	-	-	-	-	7	0 0
Collected by W. Lee, Esq.	-	-	-	-	8	2 3
Mrs Charles Bowlby	-	-	-	-	7	7 0
Chas. E. Mumford	-	-	-	-	5	5 0
Chas. Ed. Rivington, Esq.	-	-	-	-	5	5 0
Lady Fitzwygram	-	-	-	-	5	5 0
Mrs Van Raalte	-	-	-	-	5	5 0
Davies & Sons	-	-	-	-	5	5 0
J. R. Upton, Esq.	-	-	-	-	5	5 0
A. Vagliano, Esq.	-	-	-	-	5	5 0
Davey, Hill & Son, Yates & Hicks	-	-	-	-	5	5 0
W. H. Myers, Esq., M.P.	-	-	-	-	5	5 0
Evans & Wormull	-	-	-	-	5	5 0
Duke of Wellington	-	-	-	-	5	0 0
Mrs C. E. Fuller-Maitland	-	-	-	-	5	0 0
Mrs Earle	-	-	-	-	5	0 0
Mrs de Winton	-	-	-	-	5	0 0
Mrs Hamlyn	-	-	-	-	5	0 0
Sir Ed. Lawrence	-	-	-	-	5	0 0
Mrs Mary Hollins	-	-	-	-	5	0 0
Rev. Dr and Mrs Price	-	-	-	-	5	0 0
Sir Wm. Hower Forwood and Lady Forwood	-	-	-	-	5	0 0
Sir Geo. H. Lewis	-	-	-	-	5	0 0
Duchess of Sutherland	-	-	-	-	5	0 0
John Nicholson, Esq.	-	-	-	-	5	0 0
E. W. Hennell, Esq.	-	-	-	-	5	0 0
W. Middleton Moore, Esq.	-	-	-	-	5	0 0
Mrs Sibyl Currie	-	-	-	-	5	0 0
William Fair, Esq.	-	-	-	-	5	0 0
Lady Lumsden	-	-	-	-	5	0 0
Countess Grosvenor	-	-	-	-	5	0 0
A. F. M. Spalding, Esq.	-	-	-	-	5	0 0
W. D. Cruddas, Esq., M.P.	-	-	-	-	5	0 0
Carry forward,	-	-	£12,766	9	3	

	Brought forward,	-	-	£12,766	9	3
Duke of Norfolk, K.G.	-	-	-	-	5	0 0
Rev. Robert Webster	-	-	-	-	5	0 0
Thos. Bumpus, Esq.	-	-	-	-	3	10 0
Arth. Bellingham, Esq.	-	-	-	-	5	0 0
Lady Cowell	-	-	-	-	4	4 0
John Rigby, Esq.	-	-	-	-	3	3 0
Mrs Timmis	-	-	-	-	3	0 0
Alfred Apps, Esq.	-	-	-	-	3	3 0
Per Chas. Walker, Esq.—						
St John's, Kilburn	-	-	£1	18	5	
J. Sinclair Moore, Esq.	-	-	0	10	0	
Do.	-	-	2	10	0	
					4	18 5
Mrs Corkran	-	-	-	-	2	2 0
Arth. A. Collings, Esq.	-	-	-	-	2	2 0
Mrs M. J. F. Turner	-	-	-	-	2	2 0
Miss Gartside Tippinge	-	-	-	-	2	2 0
Per Rev. J. S. Moore—						
Rev. J. S. Moore	-	-	£2	2	0	
St John's Vicarage, Kilburn	-	-	0	10	0	
					2	12 0
Rev. H. Hammersley	-	-	-	-	2	10 0
Mrs Wilson	-	-	-	-	2	2 0
H. W. Segelake, Esq.	-	-	-	-	2	2 0
Chas. Davis, Esq.	-	-	-	-	2	2 0
Per Rev. Canon Gilbert—						
Rev. Canon Gilbert	-	-	£1	1	0	
Rev. R. H. Law	-	-	1	1	0	
Heversham Church, per Capt. Bagot	-	-	0	10	0	
Mrs Germain	-	-	0	10	0	
					3	2 0
S. W. Silver & Co., and Benj. Edgington, Ltd.	-	-	-	-	2	2 0
Geo. P. Cooley, Esq.	-	-	-	-	2	5 0
Gilbert Parker, Esq.	-	-	-	-	2	0 0
Canon Mason (collected at Whitwell Parish Church)	-	-	-	-	1	12 6
Mrs Fuller Maitland	-	-	-	-	1	11 6
Members of the Girls' Club (St John's Parish, Kilburn)	-	-	-	-	1	10 0
Miss Baines	-	-	-	-	1	5 6
Rev. W. B. Greenside	-	-	-	-	1	1 0
Mrs Jacob Tanner	-	-	-	-	1	1 0
Mrs Ellen Plumbe	-	-	-	-	1	1 0
Rev. T. Lewthwaite	-	-	-	-	1	1 0
Carry forward,	-	-	£12,842	16	2	

LIST OF SUBSCRIPTIONS

29

Brought forward,	-	-	£12,842	16	2
Mrs Bell (collected by) -	-	-	-	1	1 0
Anonymous, per Lady Bective -	-	-	-	1	1 0
Lieut.-Col. C. D. Patterson -	-	-	-	1	1 0
Thos. Wallis & Co., Ltd. -	-	-	-	1	1 0
Miss Bridson -	-	-	-	1	0 0
Anonymous, per Lady H. Bentinck -	-	-	-	1	0 0
Fred. W. Poland, Esq. -	-	-	-	1	0 0
Anonymous, St Leonard's -	-	-	-	1	0 0
Anonymous, per Lord H. Bentinck -	-	-	-	0	16 0
Master John and Miss Dolly Morgan -	-	-	-	0	10 1
Anonymous -	-	-	-	0	10 0
Miss Geraldine Plummer -	-	-	-	0	10 0
Miss K. Mostyn -	-	-	-	0	5 0
Collected by Miss Pamela Plowden—					
Andrew Wood -	-	-	£10	0	0
J. P. Heywood Lonsdale -	-	-	10	0	0
W. H. Millard -	-	-	5	5	0
Lord Kenyon and Anonymous -	-	-	10	0	0
				35	5 0
Per Chris. Graham, Esq.—					
Miss Richmond, Kendal -	-	-	£2	0	0
Ernest Crossley, Esq. -	-	-	5	0	0
T. A. Argles, Esq. -	-	-	25	0	0
				32	0 0
Per Mayor of Kendal—					
E. W. Wakefield, Esq. -	-	-	£25	0	0
Mr and Mrs Colin Somervell -	-	-	20	0	0
Miss Marjorie Somervell -	-	-	0	7	6
Mrs A. H. Willink -	-	-	10	0	0
Alex. Milne, Esq. -	-	-	7	10	0
F. W. Crewdson, Esq. -	-	-	5	0	0
Mrs F. W. Crewdson -	-	-	5	0	0
Henry Hoggarth, Esq. -	-	-	0	10	0
Mrs E. W. Wakefield -	-	-	10	0	0
Gilbert Gilkes, Esq. -	-	-	10	0	0
Norman F. Wilson, Esq. -	-	-	5	0	0
T. Thwaites, Esq. -	-	-	1	0	0
Mr and Mrs Swinglehurst -	-	-	5	0	0
John Botten, Esq. -	-	-	3	0	0
Mrs Benson -	-	-	10	0	0
Miss Hornby -	-	-	2	0	0
Carry forward,	-	-	£119	7	6
			£12,920	16	3

Brought forward,	-	-	£119	7	6	£12,920	16	3
Mrs Keightley	-	-	50	0	0			
Mrs H. Miles Radcliffe	-	-	25	0	0			
The Misses Whitwell	-	-	5	0	0			
D. J. Pennington, Esq.	-	-	5	0	0			
John Banks, Esq.	-	-	5	0	0			
Geo. E. Moser, Esq.	-	-	5	5	0			
Mrs M. Bowsher	-	-	1	0	0			
Gordon Wordsworth, Esq.	-	-	5	0	0			
Mrs Crossley	-	-	20	0	0			
Mrs A. Keightley	-	-	15	0	0			
						255	12	6
Kendal and S. Westmoreland District, per Chris.								
Graham, Esq.—								
E. J. Abott, Esq.	-	-	£1	1	0			
J. G. Gandy, Esq.	-	-	10	0	0			
Collected by Sergeant Squire	-	-	3	0	0			
Mrs Benson	-	-	5	0	0			
P. M. T. Jones Balme, Esq.	-	-	25	0	0			
Miss Jane Parkin	-	-	5	0	0			
Major E. G. S. Hornby	-	-	25	0	0			
Local Committee (being proportion of subscriptions not designated) -			125	19	0			
						200	0	0
Collected by Mr and Mrs Hickling—								
A. Hickling, Esq.	-	-	£20	0	0			
H. Greenway, Esq.	-	-	2	0	0			
C. W. Wilson, Esq.	-	-	2	2	0			
Miss Laura C. Hickling	-	-	1	1	0			
R. Reid, Esq.	-	-	1	1	0			
D. Phillips, Esq.	-	-	1	1	0			
H. Yatman, Esq.	-	-	2	0	0			
Mrs T. M. Mort	-	-	5	0	0			
E. Elyard, Esq.	-	-	0	10	0			
Proprietors of Hay's Wharf	-	-	50	0	0			
H. Hickling, Esq.	-	-	20	0	0			
						104	15	0
<i>National Aid to the Sick and Wounded in War.</i>								
The Rev. H. A. Fielden	-	-	£20	0	0			
Colonel Mason	-	-	5	0	0			
Carry forward,	-	-	£25	0	0	£13,481	3	9

LIST OF SUBSCRIPTIONS

31

Brought forward,	-	-	£25	0	0	£13,481	3	9
Mrs Mason	-	-	5	0	0			
Marcia and Randle Mason	-	-	2	0	0			
Miss Mason	-	-	3	10	0			
G. E. Thompson, Esq.	-	-	5	0	0			
Mrs John Thompson	-	-	5	0	0			
Miss Marcia Feilden	-	-	1	0	0			
Miss C. K. Feilden	-	-	1	0	0			
Miss K. N. Feilden	-	-	1	0	0			
Mrs Thompson	-	-	1	0	0			
Rev. J. G. Leonard	-	-	1	0	0			
C. S. Robinson, Esq.	-	-	1	0	0			
A. F. Jordon, Esq.	-	-	1	2	6			
Joseph Thompson, Esq.	-	-	1	5	0			
Mrs Davis	-	-	2	0	0			
Mrs Byers	-	-	1	0	0			
Mrs Eleanor Holmes	-	-	0	10	0			
J. F. Trotman, Esq.	-	-	0	10	0			
Mrs Dixon	-	-	0	10	0			
Armstrong & Sons	-	-	0	10	0			
			1	2	6			

60 0 0

Collected by Mrs Anthony Bowlby—

Mrs James	-	-	£1	0	0
Miss Mary James	-	-	0	10	0
Mrs Heathcote	-	-	0	5	0
Mrs George Bowlby	-	-	2	0	0
E. Macrory, Esq.	-	-	5	0	0
Miss W. M. James	-	-	0	10	0
Rev. R. Pollexfen	-	-	0	3	6
Mrs Boyce	-	-	2	2	0
Mrs E. Brice Pearse	-	-	2	0	0
Mrs Levinge	-	-	3	0	0
Mrs Majendie	-	-	0	10	0
Miss D. M. Majendie	-	-	1	0	0
Rev. Henry Bowlby	-	-	5	0	0
Mrs Tristram	-	-	0	10	0
Mrs H. Boyce	-	-	1	1	0
Mrs Thackray	-	-	0	1	0
Edward Levinge	-	-	5	0	0
Mrs Malcolm Fox	-	-	5	0	0
Lady Mabel Howard	-	-	0	10	0

Carry forward, - - £35 2 6 £13,541 3 9

[illegible]

REPORT OF THE MEDICAL STAFF





HOSPITAL TENTS AT RONDEBOSCH.

[To face page 35.]

PERSONNEL, EQUIPMENT, AND INTERIOR ECONOMY

By Surgeon-Colonel KILKELLY, Grenadier Guards

P.M.O. of the Portland Hospital.

IN connection with the fitting out of War Hospitals it must be remembered first that there is always present the transport difficulty, and hence the lighter the hospital the quicker and the more completely will it reach its destination. Secondly, the exact nature of the hospital must be definitely determined, for, by attempting to attain too many objects the utility of the hospital will be considerably impaired. The object of medical aid in war is to evacuate from the front as quickly as possible, consistently with the greatest care and comfort to the sick and wounded. This evacuation is carried out by "Bearer Companies," "Field Hospitals," "Ambulance Trains," "Stationary Hospitals," "General Hospitals," and "Hospital Ships" to England.

"Bearer Companies" and "Field Hospitals" are essentially mobile units. They have a large transport and a light equipment—no beds, and only a few bell tents. The "Field Hospital" weighs 8 tons and will accommodate 100 patients, and can be pitched or struck and packed into waggons in about an hour. "Stationary Hospitals" (which must not be confounded with "Station" Hospitals in peace time) are more of the nature of rest camps on long lines of communication. The "General Hospital,"

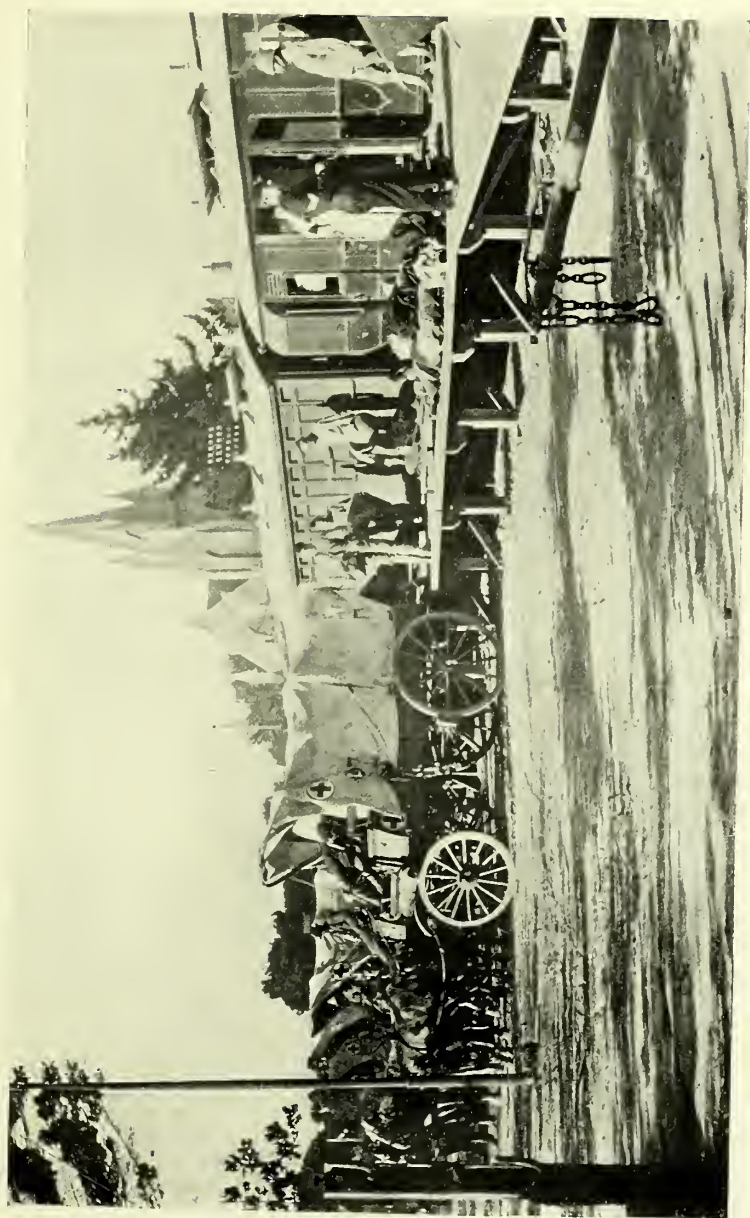
the place to which all sick and wounded are ultimately sent, is equipped for 520 beds. It is here that all important surgical and medical treatment is carried out with the maximum of skill and comfort attainable under the circumstances, and here the final destination of the inmates is determined, whether to "duty," "garrison duty," or "home."

The Portland Hospital Committee decided to send out to South Africa a hospital for 104 beds, equipped as a fifth section of a General Hospital, but with some considerable modifications, according to the suggestions of its Medical Staff. The hospital was afterwards increased to 130 beds for non-commissioned officers and men, and 30 for officers. It is to a description of its personnel, equipment, and interior economy that this section is devoted.

PERSONNEL (see Appendix A, including Pay).

The Committee having appointed the Medical Staff, left to us and to the Hon. Secretary, Major-General the Hon. H. Eaton, the selection of the remainder of the personnel and the purchase of the equipment. We necessarily divided our labour. The surgeons selected their surgical instruments and material, etc., whilst we were all more or less responsible for the purchase of our stores. The physicians selected their medicines and medical stores, including the X-ray and photographic apparatus, whilst to the Hon. Secretary and the Surgeon-Major in military charge was delegated the task of purchasing the bulk of the equipment and general supplies.

Our personnel consisted of 2 non-commissioned officers of the R.A.M.C., 4 non-commissioned officers, and 24 men of St John's Ambulance Brigade, and 6 servants, including a Swiss cook and a female servant. Amongst our orderlies certain useful trades and professions were represented, such as: compounders, cooks, carpenters, farriers, painters, engine-fitter, sailors, clerks,



HOSPITAL TRAIN DISCHARGING SICK AND WOUNDED, Army Ambulance Waggon in foreground.

[To face page 36.]



steward, etc. All had obtained the first aid certificates, and many had also the "nursing" certificates, of the St John's Ambulance Association. Some were men who had served in the Royal Marines, Royal Army Medical Corps, or Army Service Corps. Each man signed a contract (Appendix B) for six months' service. An insurance was effected at Lloyds for an annuity up to 1s. a day for each man if disabled by wounds or disease. The conditions for obtaining this pension were similar to those approved by Chelsea Pensioners' Board. Married men, especially those with families, were discouraged from joining our hospital. Each man who signed the contract was then clothed according to the scale adopted by the St John's Ambulance Association (see Appendix C, which includes supplementary issue). This scale proved afterwards to be much too small, and several of the articles were not of a sufficiently good quality, so that the kit had to be largely supplemented or replaced in Cape Colony by an issue of warm serge khaki suits, strong boots, underclothing, etc., from the Army Ordnance Corps. Too much latitude had also been allowed the men in the selection of their boots, and old and part-worn boots had been obtained, which soon became useless. Mess tins of military pattern were accidentally omitted from the original list of kit, but were obtained later and found most useful.

During the voyage out every one was examined, to ascertain if they were sufficiently protected by vaccination against smallpox. Every one was also offered the opportunity of being inoculated against enteric fever—a precaution which proved most valuable afterwards during the Bloemfontein epidemic. At the same time the various orderlies were told off for different appointments, and after the selections had been made for the so-called "staff" appointments, such as cooks, clerks, wardmaster, steward, storekeeper, compounder, etc., the whole of the remaining orderlies were divided into four sections or

groups, and each section was detailed to work with one of the four sisters.

In addition to the pay of each individual as fixed by contract, a system of "Extra-duty Pay" and "Extra Messing Allowance" was adopted. The scale for each of these was fixed at 4d. a day. Extra-duty pay was given to those who had certain extra duties to perform, such as mess waiter, postman, post-mortem orderly, etc., or who worked at their respective trades (painter, carpenter, farrier, etc.). The extra messing allowance of 4d. a day was given to every man, with the object of improving the rations allowed by Government, by the purchase of such articles as jam, fresh vegetables, butter, porridge, milk, etc., in bulk, according to the wishes of individuals, or of the various "messes" into which the personnel were grouped, and which corresponded very closely with the four ward sections.

For night duty no separate staff of night orderlies was appointed, but a system was adopted by which no orderly, even at the time of our greatest pressure, need ever be without six hours sleep. According to a roster, about a fourth to a third of the orderlies and a due proportion of sick officers' servants were detailed for each night duty in two reliefs, under a wardmaster or non-commissioned officer. The first group were ordered and seen to bed in a special tent by the night wardmaster at 7 P.M., and remained there till 1 A.M., when they were called to relieve those who were on duty during this first period. The first group would then remain on duty till 7 A.M., whilst the other group slept. At 1 A.M. a cup of cocoa and milk was given to the whole of the orderlies on night duty.

The remainder of the so-called "staff billets" were as follows:—

"Chief Wardmaster," whose duties comprised discipline, keeping roster of duties for orderlies, arrangements for meeting and sending off convoys of patients, responsi-



KITCHEN AT BLOEMFONTEIN.



WASHING AT BLOEMFONTEIN.

[To face page 38.]



bility in seeing that orders were carried out, etc. The "Steward" was responsible for requisitions for drawing of rations and diets, provision stores, and returns. Under the steward was a staff of clerks and storekeepers for "provisions," "linen," "pack," and "ordnance" stores. The dispensary was in charge of a sergeant. An orderly was appointed to the operation theatre; X-ray apparatus, and surgical stores, which were in the care of a sister. A non-commissioned officer with some natives supervised the sanitary arrangements. Another orderly had charge of the transport vehicles and animals, and had as his assistants, a groom, a farrier, and some natives. This orderly, being an engine-fitter by trade, had also care of an engine which was used for charging the X-ray accumulator. Another of our orderlies, whose occupation was in a Water Works Company, was placed in charge of the Pasteur filter installation.

Our last, but not least in importance, "staff billets" were the cooks. We had three cooks and some assistants working in two kitchens, one for officers and nurses and the other for the patients and orderlies. In fitting out kitchens it is well to keep each kitchen in a separate building if possible, and with separate establishments and equipments.

The kitchens were divided into two portions, the one for patients and orderlies, and the other for the officers' and sisters' messes and for special foods. This division suited the capabilities of the two men in charge of their respective sections. Each section had two Swedish Bollinger ranges inside and some War Office pattern camp kettles on two rails outside the kitchen building, also a complete set of the usual cooking pots and utensils, including a set of steel nesting saucepans (Appendix L, kitchen inventory). A 40-gallon caldron was always kept full of boiling water. For night use a few portable paraffin stoves were in use. The kitchen was contained in a zinc shed building kindly erected by the Royal

Engineers. Refuse pits for dry and decomposing refuse were dug behind the camp some fifty yards or more from the kitchen. A meat safe, an ice safe, and a Pasteur-Chamberland filter completed the equipment of the hospital proper.

This Pasteur-Chamberland filter was specially constructed with a view to its carriage on a mule. It consisted of three baskets. Two of these were lined with a waterproof cloth. The third basket was intended for the pump and spare parts. Near the top of these two lined baskets was a framework supporting six collecting metal tubes, and from these were suspended some 80 Pasteur-Chamberland porcelain tubes. The six collecting tubes conveyed the water into one flexible tube leading to a vacuum delivery pump. From four to six such baskets of tubes might be connected with one vacuum and delivery pump, but we only used two such baskets. The filter was put in action by filling the baskets with water by means of buckets. Then by working the pump a vacuum was produced in the vacuum chamber and along the tubes into the porcelain cylinders, and in this way by atmospheric pressure water was filtered through the tubes into a vacuum chamber, and then out by the delivery pipe to wherever it was required.

This filter answered very well up to a certain point. It requires to have duplicate parts supplied, especially the pump, so that the filter may be divided for use in different parts of a hospital, and any part requiring repair may be immediately replaced. It should be placed on coiled springs, and if possible mounted on a small carriage so that it may be wheeled about to places as well as carried on mules as panniers. The filtering medium is one of the best that is known, and it is generally believed that it will not allow the passage of any organism; it is less brittle and harder substance than the Berkefeld, and more easily cleansed by brushing. This method of filtering the water by means of a vacuum is preferable to direct



CALDRON FOR BOILING INFECTED LINEN.



THRESH'S DISINFECTOR.

[To face page 40.



pressure as there is less strain on the apparatus; the water can be subjected first to a coarse filtration through flannel if very turbid. A large number of 3-bougie pocket filters and water-bottles can be substituted for this larger pattern if necessary.

The system of Sanitation adopted by us was as follows:—Latrines were built for sick officers, medical officers, sisters, non-commissioned officers, men, and enteric cases. Dysenteric and enteric stools were burnt with sawdust (see Rules for Disinfection, F). All infected linen and clothing was at once soaked in perchloride of mercury or izal, and then either boiled in caldrons or steamed in Thresh's disinfector. All refuse—dry, moist, and ward slops—was carried away and buried in deep separate pits. All refuse that was capable of being so treated was burnt. Clothing of patients admitted to hospital was frequently full of lice, and was all boiled after previous soaking. All clothing that remained good after being so boiled was re-issued to the patients on discharge, and supplemented by new clothing, a stock of which we kept in hospital for this purpose.

Washing.—At Rondebosch our hospital and private washing was done by contract, but at Bloemfontein we had to make special arrangements. Anticipating difficulties, we provided ourselves at Cape Town with a stock of blue soap, 40-gallon boiler, metal baths in nests, 15-feet posts, clothes lines and clips. On arrival at Bloemfontein we engaged a dozen native women, at 2s. a day with food, to wash every day for us. A tent with a large table was also provided, where all the ironing, starching, folding, and finishing was carried on. We found this system to answer admirably.

Besides these native women, some seven or eight native men were employed in various fatigue duties about the camp, chiefly to keep it clean.

On our departure for Bloemfontein we were allowed, through the kindness of Mr Bullough, to engage two sailors from off his yacht *Rhouma*. They were of the greatest

assistance to us, and did every kind of work most cheerfully and thoroughly.

EQUIPMENT.

Briefly stated, the total weight of our equipment for 160 beds was 70 tons, and the space occupied was twelve railway trucks. Including our personnel complete, two ambulances, a water-cart, six mules and three horses, twelve trucks (one of which was a bogie, and one a saloon carriage) took us all, except a small advance party of four, from Cape Town to Bloemfontein.

Our surgical and medical equipment is detailed elsewhere. The operating theatre was a tortoise tent 20 by 24 feet, with a boarded floor, and a powerful 50-candle-power oil lamp. Electric light was also available, but was not often used.

The dispensary was also a tortoise tent fitted up ingeniously by the dispenser (Staff-Sergeant MacNamara). The boxes containing the drugs were all of the same size and shape. By placing these on their sides, one on the top of another, the lids of each box could be opened downwards and each formed a sort of cupboard for the drugs it contained. The case in which the operating tables had been packed formed a most excellent dispensing table. The floor was covered with tarpaulin.

The patients' tents consisted of 13 tortoise tents, 20 by 24, and one 20 by 30, 2 ordnance store tents 60 by 30, and 8 bell tents. Each tortoise tent contained 8 patients, except the larger one which was arranged for 16. The ordnance tents contained 18 patients each, and the bell tents contained one to two patients, according to the nature of the cases—these completing a total of 160 beds.

The tortoise tent, 20 feet by 24 feet size, makes an excellent ward tent for 8 beds, although 10 beds could be easily put in. If well pitched it will keep out the heat of the sun, and it is quite water tight and will withstand heavy and prolonged rain and strong winds. Each tent requires, especially



A TORTOISE TENT.

[To face page 42.





THE X-RAY ENGINE AND ENGINEER.

[To face page 42.]



in clay soils, to be provided with four long iron pegs, 2 to 3 feet in length. The sides can be lifted up easily and thorough ventilation effected. The tortoise tent weighs about 320 lbs. and can be packed on two mules, being divisible into four parts of about 80 pounds each. (See Appendix H).

The ordnance store tent made a very good ward, but required to have an inner lining something like that of the tortoise tent. Flooring for these tents was a question much discussed, and we decided to use nothing except two strips of coir matting and small strips of Japanese matting. Thus, the ground could be swept daily and sprinkled with a solution of izal in water, and a most satisfactory floor was the result. Each tent was well trenched.

For inventory of equipment of a tortoise tent ward, see Appendix J. The eight beds were wooden-framed spring beds with folding legs. Each bed and mattress complete weighed 60 lbs. Although none of them broke, yet these bedsteads were liable to break unless carefully packed, and for this reason similar light, strongly-made, steel-framed, spring beds might perhaps be better, if they could be made of the same weight. In the centre of the ward was placed a table 6 feet by 3 feet, with two cupboards made from packing cases, and covered with a cretonne. Between every two beds was a bedside table. A combined diet and chart board belonged to each bed. A complete set of enamel ware and cutlery was provided for each tent, also feeding-cups, milk and water cans, brushes, etc., according to list in appendix. An officers' ward was similarly fitted up, except that china and crockery was used instead of enamel ware, and a finer quality of matting was placed on the floors.

All our provisions, linen, clothing, and gifts were kept in a large ordnance store tent divided into three parts. Empty cases were piled and arranged in a row along the centre and sides, with their open ends facing outwards, and thus an excellent set of storing shelves were constructed,

and our packing cases were preserved from damage for future moves of the hospital. The pack store and ordnance clothing stores had necessarily to be in a separate tent. The ordnance stores were arranged in a tent, and patients who had lost their clothing were re-fitted there. A strong safe was kept in the office, where all money and valuables belonging to patients were kept. Some patients have handed in sums of £50 and £60 at a time for safe custody.

The officers' mess was located in a green tortoise tent with a floor of coir matting. We arranged to have a combined mess, so that medical officers and convalescent officers and their friends should mess together. A daily menu card, which included luncheon and dinner for the day and breakfast the day following, was useful, inasmuch as sick officers on full diet, but who were not able to come to mess, could select their own food. (Specimen menus, Appendix D). The food in mess consisted of each officer's rations supplemented by extras ordered for those who might be patients, by mess stores, and by local purchases of milk, eggs, fruit, and vegetables. The mess stores from England were packed in two ways: (1) Small quantities of various foods were packed in numbered cases, and catalogued so that each case had an assortment of food. (2) Other cases were each filled with one kind of food or other stores. The former is the better method if one anticipates much movement, and the latter if the hospital is to be more stationary. A judicious combination of the two methods would be the best. There are certain articles of food which we found were in great demand, such as jams, especially Cape jams, which are of most excellent quality, oatmeal, milk, particularly unsweetened milk and Dahl's Norwegian milk, small tins of cream, pressed beef, arrowroot, cigarettes, etc. Enamel-ware plates and dishes were in stock for use during moves, but these were replaced completely, whenever we became stationary, with crockery and glass.



DISTRIBUTION OF CLOTHING.

[To face page 44.]





UNLOADING WOUNDED.

[To face page 44.

Each medical officer had a square bell tent to himself, and except at the very beginning each sister had a tent to herself. A "square bell" tent has four corners, which enables the space to be economised, and by means of an upright pole of 6 feet in the doorway a great deal more head room is obtained than in an ordinary bell tent. The centre pole has sometimes a nasty way of going through the canvas and allowing the tent to subside. These tents are very good if lined. They weigh 80 lbs.

All non-commissioned officers and men had their diets served to them in their wards on diet trays, as ordered by their medical officers. Diets for patients in hospital were of two kinds. At Rondebosch, where we were near abundant supplies, the regular hospital diets and extras were issued, and the military diet sheets used (see Appendix for Diet Sheets, and Diets and Extras, E, *b*, *c*, *d*). At Bloemfontein "rations" and "extras" were issued, and from these we devised a scale of diets and extras (see Appendix E). As these were daily prescribed by the medical officers the sisters wrote down the instructions in the ward book, and each made a summary of diets and extras ordered for her section, and sent this summary in to the steward, who then requisitioned accordingly. This question of diets and extras is a much debated question. In our opinion the military system of ordering diets, if properly carried out, is a most excellent one, but the number of meals is too few. We therefore arranged for a fourth meal at about 7 P.M. as a kind of light supper, which we found to answer exceedingly well. We were fortunate in having good cooks, but if men were obtainable for war hospitals who had been thoroughly trained in a combination of "field" and "sick" cooking, and who could adapt themselves to circumstances, a most useful and valuable addition could be made to the personnel.

For local transport we had a couple of ambulances and some six to eight mules, as well as an American trap, a water cart, and riding horses. A light American General

Service waggon would in addition have been very useful. This transport was utilised for the sick, for drawing rations and forage, and for transport of water.

A large number of tarpaulins, with poles 15 feet long and bolts and nuts a foot long, were very useful to us. With these we erected a bath house for men, shelters for natives, and shelters for packing cases, rough stores, and tools. Tarpaulins were also useful for floors of tents, and for quickly protecting exposed stores from rain.

There are some important points in connection with the *packing* of all this equipment that we have not yet touched upon. It is well to have some trained packers amongst the orderlies. All packing cases should be so constructed as to be capable of being utilised either as tables or cupboards. It would be useful to have these cases made in standard sizes, so that they could be built up into tiers of shelves or cupboards. They should not be too large or heavy—40 and 80 lbs. loads are the most convenient for transport.

Beds and mattresses should not be packed too many together. Not more than two beds and two mattresses should be packed together. One of our beds and mattresses alone weighed 60 lbs., and they were light.

Cases should be bound with iron, and screws used instead of nails, so that they can be removed without destroying the cases.

The name of the corps and the address should be clearly painted on each package. Each case should have a consecutive number in its own special series and distinguishing mark, and the contents should be carefully enumerated in an inventory.

These precautions, most of which we had taken when fitting out our hospital, proved of the greatest possible assistance to us and saved us no end of time, trouble, and losses afterwards. Printed labels are useful to have always ready, but are difficult to make adhere properly. We went so far as to paste labels on the railway trucks carrying



A PORTLAND HOSPITAL AMBULANCE WAGGON.

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our hospital, and they saved our losing two truck loads of stores.

A few suggestions as to stores may not be out of place here as the result of our experiences: Provision should always be made for a good supply of unsweetened milk. It is perhaps in some ways better than fresh milk, for one never knows whether the latter is pure. We have on several occasions, when we were short of fresh milk, issued unsweetened milk ready mixed with water as fresh milk, and it has been invariably taken with relish, and has often not been detected as tinned milk. Some brands of milk, such as Dahl's Norwegian Sterilised Milk, are most excellent and much better than many specimens of fresh milk.

A simple laundry and portable disinfecting apparatus (such as that constructed by Messrs Defries) should if possible be established.

A spare surplus stock of palliasses, waterproof sheets, and blankets are useful to have ready in the event of the unexpected arrival of any large convoy of sick. Convalescents or those slightly wounded can then be temporarily accommodated till more room became available, and more serious cases can be examined on these temporary beds before they are allotted to their proper wards.

An agent to collect stores and send off supplies at the base of operations is a most necessary appointment to make, and will help to save much trouble and time.

Appendix M will show the dates of our arrivals and departures, and of our first and last convoys of sick. During an actual number of 180 days, when sick were in our hospital, we treated 1009 patients. We received our first convoy of 33 sick at Rondebosch on 8th January, six days after the arrival of the transport *Victorian* with our equipment. It occupied us eleven days from the day we discharged our last patients at Rondebosch on 6th April to the day we received our first at Bloemfontein, including the railway journey of six days. On the 18th July we handed over our last patients prior to our departure for

England, where the hospital arrived on the 18th August 1900. During the voyage the personnel treated 82 cases (see Appendix O).

In Appendix N is a short statement of rates per cent. of sick and wounded for calculating hospital accommodation. Appendix O contains a list of kit recommended for hospital officers.

In a military hospital a large number of rules have been framed as the result of experience so as to enable the whole to work automatically, and yet maintain the chain of responsibility. One is apt to forget in the administration of a military hospital that the regiment is the soldier's home for the time being, and that he has a commanding officer, and relations and friends asking for information, and that the War Office Authorities require certain statistics on the health of our troops all over the world, so that health precautions may be adopted. Consequently there are certain correspondence records and returns which are essential. There is no doubt, however, that many returns and much correspondence might be abolished.

The aim of a Private War Hospital should be to reproduce those Military Rules and Returns, etc., that are most suitable, and omit the others.

The following are some that appear to be essential:—

"*Admission and Discharge Book*" is the basis of all returns. It gives the number, name, rank, corps, age, service, disease, date of admission, discharge or death, and remarks. In order to keep this book correctly, it is essential that these particulars should be furnished by some responsible person immediately on the admission of a patient, and that the medical officer should, in his own handwriting, name the disease according to the "*Nomenclature of Diseases* compiled by the Royal College of Physicians, London."

"*Diet Sheets*" are usually collected by a Wardmaster who has a "*Summary of Diets*" made (see Appendix E c)



CONVALESCENTS.

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and sent to the steward of the hospital, who is then responsible for the drawing of diets and extras and issuing them to the cooks. For this reason the original ordering or prescribing of diets must be accurately done by the medical officer or person he deposes.

The *Weekly Return* gives a summary of the sick by diseases, and by corps, a list of officers sick, deaths, remarks on sanitation, prevalence of disease, etc. This return gives a brief review of the state of the sick in hospital and the changes they undergo from the state of the previous week.

THE CAREER AND WORK OF THE PORTLAND HOSPITAL

By ANTHONY BOWLEY, F.R.C.S., Senior Surgeon.

THE Portland Hospital may be said to have commenced its career on 13th December 1899, on which day the Medical Staff and the orderlies embarked at Liverpool on the R.M.S. *Majestic*, "transport No. 68," and its work was finished when the transport *Canada*, with sick and wounded troops, arrived at Southampton on 18th August 1900. Much had happened during this time, and great events had occurred in South Africa, with very important and far-reaching results, affecting both the army as a whole and the hospitals which proved so important and necessary for the maintenance of that army in the field.

The voyage was comparatively uneventful, but the opportunity of a quiet time on board was utilised to inoculate a large number of the orderlies and staff with typhoid toxin, with results which will be found in detail later on; and for the present it is sufficient to note that, though some were for a short time rendered much more ill than others, all arrived at Cape Town in good health on 28th December, when on a lovely evening Table Bay and Mountain and the more distant peaks on the mainland looked their best in the light of the setting sun. Orders arrived for the *Majestic* to go round



TENTS OF MEDICAL STAFF AND ORDERLIES AT RONDEBOSCH.

[To face page 50.]



to Durban on the following day, so that the Hospital Staff disembarked on the morning of 30th December, the orderlies, with Surgeon-Colonel Kilkelly in command, going to Rondebosch, and the rest of the staff joining Lord and Lady Henry Bentinck and Captain and Mrs Bagot at the hotel to which they had gone with the nurses who had accompanied them on the mail steamer which arrived three days previously.

A call on the Surgeon-General resulted in the information that the military authorities had fixed upon Rondebosch, five miles from Cape Town, as the place where the hospital should commence work, and the arrival of the transport *Victorian* with stores three days later enabled the camp to be pitched forthwith.

The situation of Rondebosch was quite ideal from every point of view. Situated on the line of railway which crosses the Cape Peninsula to Simon's Town, it was excellently served by numerous trains, and the camp was placed about a mile and a quarter from the station, on rising ground.

The soil was sandy, and fir trees grew in abundance. The camp ground had been but recently cleared of trees, and had never been built over. The houses immediately around consisted of scattered villas in their own grounds, whilst to the east was the open country called the "Sand Flats," covered mostly with small bushes and heather, and rich with flowers.

From the camp there was an uninterrupted view of Table Mountain, Constantia Nek, the Constantia Berg, and the Muizenberg, whilst the few trees which had been left here and there were subsequently found most useful by the convalescent patients as a shelter from the blazing sun in the months of January and February.

There was already an excellent water supply near at hand, which had been brought from Table Mountain to supply the houses in the neighbourhood, and the work of the Royal Engineers soon resulted in a series of stand-pipes

being erected, so that there was an abundant supply for baths and wash-houses, as well as for the kitchens and the wards.

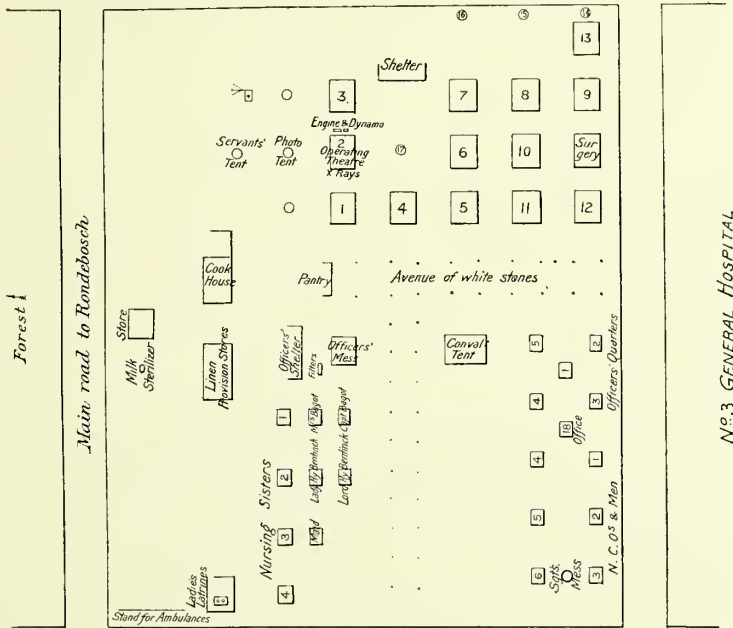
We found much of the camping-ground already occupied by the tents of No. 3 General Hospital, under the command of Col. Wood, R.A.M.C., who, with his officers, received us in the most cordial manner, and treated us during the whole of our stay with the greatest possible kindness and consideration, and did their utmost to make us feel thoroughly at home. Our camping ground was separated from the hospital tents of No. 3 by one roadway, and from those of the officers by another running at right angles, so we aligned our camp by theirs and set to work to get the tents erected.

Our kit was disembarked on Tuesday, 2nd January, and was brought to the camp mainly by road, the only difficulty experienced being that the traction engines and trucks were too heavy to pass safely over a small wooden bridge near to our ground, and that all the goods had to be off-loaded on to waggons before they could be brought to their destination. In spite, however, of such minor troubles all went smoothly and well, and so heartily did our men work that by Saturday, 6th January, our tents were pitched, our beds and bedding were unpacked, and our kitchen was in sufficiently good working order to enable us to announce that we were ready to receive patients forthwith.

The plan of the camp will show at a glance its general arrangement. It was divided into two separate parts by a central roadway, so that the tortoise tents for the patients lay on one side, and the square bell tents of the staff were pitched on the other. The tortoise tents were 24 feet by 20 feet and rectangular. They consisted of waterproof canvas, with a lining of thinner canvas loosely attached so as to hang in folds and leave a considerable air space between it and the outer covering. This lining and air-space made all the difference in the comfort of patients during the hot weather, and the universal opinion

Forest.

OFFICER'S QUARTERS
Nº 3 GENERAL HOSPITAL



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of officers and men alike was that the tents were very cool and comfortable. They were also very easy to ventilate thoroughly, as they were fitted with numerous small openings for windows, and the whole of one or other side could be furled so as to open it completely to the outside air. Each tent held four beds a side, with room to place small tables between the beds and to leave a space in the middle of the tent six feet wide for a passage way, with a central table and other ward accessories. Each tent would have held ten beds instead of eight without material crowding.

The square bell tents of the staff and orderlies were 12 feet by 9, and of single canvas. They were very commodious, but the absence of any inner lining made it quite impossible to stay in them under a hot sun, and they could not well have been used for patients. As there was no necessity for either staff or orderlies to use them during the day, the heat of these tents was not a matter of much importance. The mess tent was a square tortoise tent 20 by 20, made of green canvas with an inner lining, and was floored with cocoa-nut matting. None of the tents for patients were floored at all, and no inconvenience arose therefrom, but the floor of the operation tent was boarded, so that it might be kept free from dust and give an even surface for the operation table.

Whilst at Rondebosch we utilised the packstore of No. 3 Hospital for the storage of men's kits and rifles, whilst another storehouse was built for us by the Royal Engineers for the keeping of our stock of clothes and food, and a tortoise tent was utilised for the stores in daily use.

Our kitchen was built in a few days of wood and galvanised iron, and was fitted with a range, but we also utilised Congo-stoves. A galvanised iron wash-house for the orderlies was erected on one flank of the camping ground.

We had taken out with us ten ambulance waggons, and

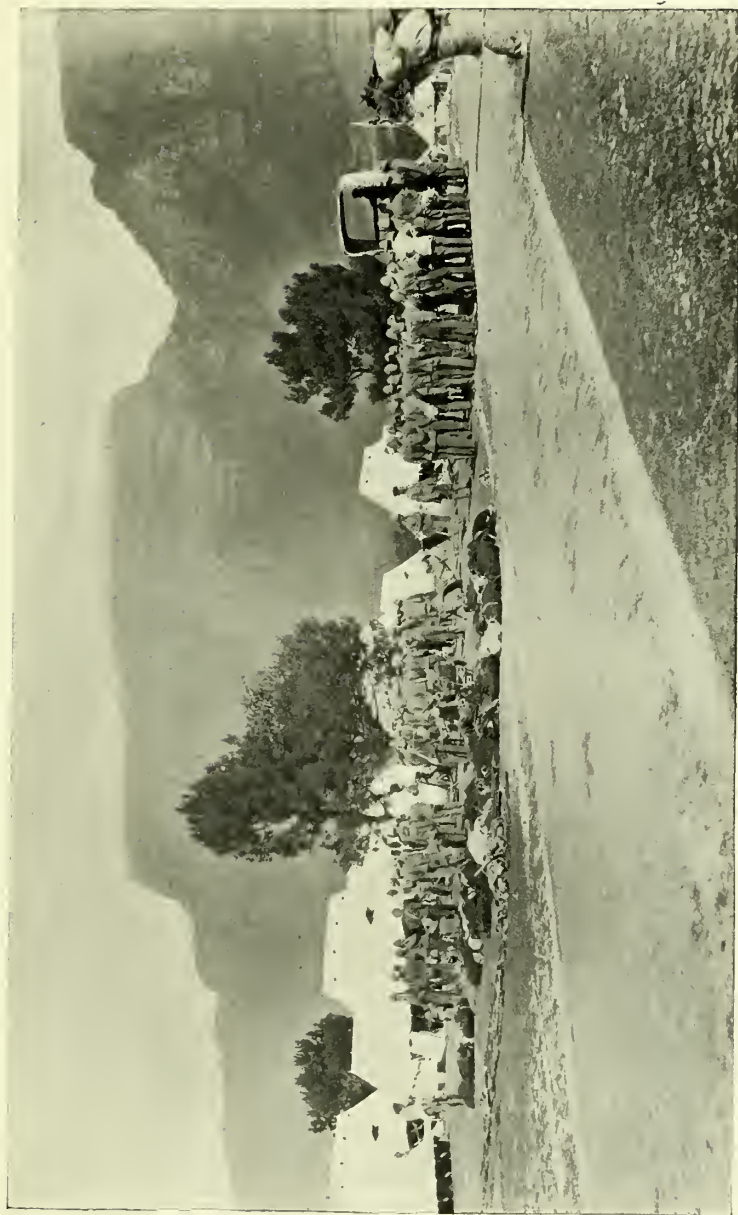
soon found that they were of more use to the military authorities than to ourselves. The patients who came to us were brought by train to Rondebosch Station, and were thence brought to us in army ambulances, in private carriages lent by people in the neighbourhood, and in our own ambulances, but the army supplied all the animals, and there was no need for us to obtain mules of our own. Our own waggons were often used, but we need not have had them.

For the purpose of bringing parcels from the station or goods from the docks at Cape Town, etc., we purchased four mules and used them in an ambulance waggon, and the mules and various horses for private use were stabled under some trees just outside our camp. Before we left for Bloemfontein we sold eight out of our ten waggons, two of them being purchased for the use of the Commander-in-Chief.

The three months of January, February, and March, during which the hospital was pitched at Rondebosch, were hot months, corresponding roughly to our summer months of July, August, and September. They were dry months, with a hot sun and a brisk wind. The sky was generally cloudless, and the shade temperature was often about 90°. The prevailing wind was from the south-east, and was sometimes very high, but, although more than a score of the marquees in No. 3 General Hospital were split and torn during our stay, none of our tortoise tents suffered in any way, although on many days the force of the wind was very great.

The soil was light and sandy and did not easily hold tent pegs, so that we had to obtain some iron pegs two feet in length to hold the chief stays of each tent. These precautions were sufficient, and no tent was ever blown over.

It will easily be gathered from the foregoing brief description of our camp and its surroundings that we had good reason to be satisfied with the start we had



ARRIVAL OF CONVOY OF WOUNDED.

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made, but there was another very fortunate circumstance to notice, namely: our proximity to the three large Base Hospitals already established, and the opportunities we were afforded of becoming at once familiarised with bullet wounds of every variety, for the battles of Modder River and Magersfontein had not long since been fought, and the wounded had nearly all been sent down when we arrived. The close companionship of No. 3 General Hospital at Rondebosch, and the courtesy of its officers, supplied us with the opportunity of visiting their 500 beds as often as we pleased, and we soon found ourselves seeing cases in consultation and inviting our friends in turn to see anything of interest we had to show them, whilst the two Wynberg Hospitals were also so easily accessible that it happened we had some 1000 beds to visit when we pleased, and an unrivalled opportunity of acquiring a large experience of gunshot wounds in a very short time.

At this period there was very little sickness and no serious epidemics. A few cases of enteric began to appear in January, but it was not until the beginning of February that the epidemic of that disease began to be serious in the camp at Modder River Station.

We were well placed at Rondebosch in other ways than on suitable soil and in a good climate, for the residents of the district vied with each other in acts of kindness. The presents of food of all kinds, and notably of grapes and other fruits, were innumerable: vegetables, milk, and butter arrived daily for the use of "No. 3" and ourselves; cigarettes and tobacco and pipes were supplied in abundance. Concerts were got up for the evenings, and on many moonlight and starlight nights several hundred patients and orderlies collected in an open space amidst the trees near the hospital; and the piano, presided over by the justly popular chaplain, and the banjo of one of the Rondebosch residents, accompanied songs which were all the more appreciated if there was a chorus which was generally known. It was a picturesque sight on such occasions. The

stage was lit by a couple of lamps, and the men in their blue hospital uniforms, the army nurses in their scarlet capes, gave the necessary colour to the scene. Some of the patients proved valuable allies, and one of "Rimington's Tigers" with a tenor voice, and an Irishman who sang bass, were in constant request. We had also many lady performers, and especially one of very exceptional talents.

A little farther afield we found another valuable ally, for the owner of the steam yacht *Rhouma*, of 800 tons, offered to take twenty men and six officers as convalescents. It need scarcely be said that the offer was promptly accepted, and in a very brief space a large deck-house was built as a ward, and was furnished with bedsteads and bedding, and fresh and salt water tanks and baths, by the very generous donor. It was curious to notice how shy the first few patients were of accepting the offer to convalesce on the yacht. Reminiscences of a not too pleasant passage out, and a dread of sea-sickness, acted as strong deterrents; but as soon as the reports of the first convalescents reached the camp there was no more hesitation, and to go on board the yacht for a week or two was the ambition of most of our patients. They thoroughly enjoyed themselves there, and the soldiers and yacht's crew spun yarns in the fore-castle to their mutual satisfaction, or fished with a line over the ship's side, or played deck quoits, and never found the day too long. There are many of our soldiers to whom the yacht and the life thereon must long remain as one of their most pleasant recollections. It was of great service to the Portland Hospital, and was very much appreciated by the staff.

Our female Nursing Staff consisted of four sisters, and to each of them the charge of certain tents was given. Those orderlies to whom were allotted the duties of nursing were similarly told off to be under certain sisters, and thus, before we had been at work more than two or three weeks, we had selected the men most suited for ward work as well as those whose duties were in the store, the stables, or other



DEPARTURE OF CONVALESCENTS.

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out-door employment. The orderlies were daily instructed in their duties by the sisters, and they very soon proved themselves apt pupils, and many of them became admirable nurses. This was of course mainly the result of the example and precept of the sisters themselves, of whose excellence it is quite impossible to speak too highly. At Rondebosch itself their work was never very arduous, though they had plenty to do, but later on, at Bloemfontein, they were constantly overworked for many weeks, and it was only because they had trained their orderlies so well when times were more easy that the nursing of the hospital was able to sustain the strain thrown upon it, and it may truly be said that in this respect it could challenge comparison with any other hospital in South Africa.

The smallness of our staff did not permit of a regular night nurse, so, as it was evidently advisable to superintend the work of the orderlies who were not sufficiently experienced to rely on their own judgment, the five members of the Medical Staff and the four nurses were all placed on a night roster and took their turn at night duty—a system which worked quite satisfactorily.

The ladies who were living in camp relieved us of all housekeeping difficulties, and took charge of the officers' mess.

They also superintended the distribution to the men of the many presents of clothing, papers, tobacco, etc., with which we had been so well provided before leaving England, and, visiting daily in the tents, they were always welcome guests, and earned the gratitude of many anxious women in England by writing home letters for men who were unable to do so themselves.

During the first part of our stay at Rondebosch our patients were chiefly derived from the troops under General French, in the country between Naauwpoort and Norval's Pont, where there was incessant fighting on a small scale constantly going on. The men were Royal Artillerymen and cavalry soldiers for the most part, but

we had ere long a considerable number of infantry and of Colonial troops in addition, and then, as the fighting became more general, our patients were drawn from all parts of South Africa, including men who had been sent round from Natal after the fighting at Spion Kop and Vaal Krantz.

Early in February, when the enteric fever epidemic was developing into a serious outbreak at Modder River Station, one of us (Dr Tooth) was sent to investigate the conditions of the outbreak, and, on his return a fortnight later, another of us (Mr Bowlby) visited the same place and Kimberley at the time when the wounded were arriving in large numbers from the fighting at Paardeberg and on the march thither. During the latter half of March we had very little work, for two reasons: In the first place another large hospital, No. 6 General, had been established at Naauwpoort, nearer to the front than we were; and secondly, after the blowing up of the Orange River bridges it was impossible to send sick and wounded down from Bloemfontein, which was by this time occupied by our troops.

It was therefore with much pleasure that we received orders to prepare for a journey to Bloemfontein, and on 8th April an advance party started to choose a camping ground and to make preparations, and on the 14th the hospital arrived at Bloemfontein.

Our move from Rondebosch perhaps deserves a brief description, for there are one or two matters which require a passing comment.

We ceased admitting patients and began to pack up ten days before we actually moved, but we did not evacuate our last patients till four days before removal. We took with us the whole of our possessions, and it was well we did so, for it was almost impossible to get anything sent up to Bloemfontein for weeks afterwards, and our supply of "medical comforts" was of the utmost service after our arrival, at a time when it was very



RAILWAY TRANSPORT OF PORTLAND HOSPITAL OVER HEX RIVER PASS.

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LOADING TRAIN AT RONDEBOSCH.

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difficult for the supply to keep pace with the constantly and rapidly increasing demand. We packed our stores mostly in the boxes and cases in which they had been sent from England, and we obtained the help of two packers from Cape Town to assist in dealing with the glass and china. The beds and mattresses were roped together and packed in cases of six each, and the blankets were separately packed. The large tortoise tents were divisible into four equal parts of about 80 lbs. each, and were easy to handle thus divided, while the small bell tents of the staff presented no difficulties.

Our whole kit was finally packed in the large trucks called "trailers," which were dragged by one of the military traction engines, and were taken by the latter to the siding at Rondebosch Station. The only misfortune that occurred at this time was that the traction engine when on its way up to our camp broke through a wooden bridge and carried it, together with the whole width of the roadway, into the bed of a stream. It was two days before the road was repaired and the engine put on its wheels again, but the delay was of no importance as we had yet time to get packed before the date fixed for our departure. Our train, consisting of eleven trucks, was drawn up at the siding, and our own orderlies loaded it up in a day.

It left Cape Town on 8th April and arrived at Bloemfontein, after an uneventful journey, in six days' time.

During our stay at Rondebosch of just three months, we had had altogether 477 patients. Of these but one wounded man died, namely, an officer who had been shot through the chest and spine and was almost completely paralysed. All our other wounded did exceedingly well, and, though some of them had been badly hit, they were all fortunate enough to keep their arms and legs. One man had his forearm and his leg shattered by expanding or so-called "explosive" bullets, and not so many years

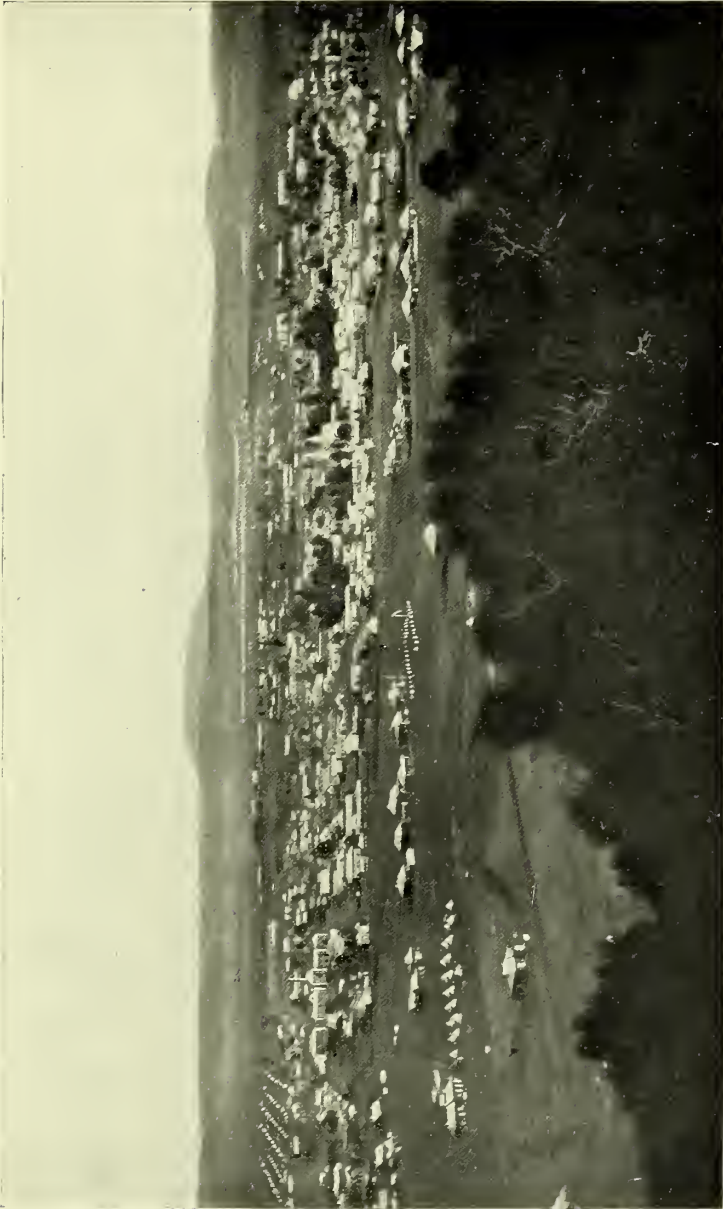
since would have probably lost both of them. He did very well, however, and was on a fair way to recovery when he went to England.

When we arrived at Bloemfontein we found that the Irish Hospital had also just arrived from Naauwpoort and was pitching its tents, and that the Langman Hospital was being erected in the cricket ground. The staff of No. 8 Hospital and most of its kit had arrived, and the tents of No. 9 were also in process of erection, but neither of these hospitals was ready for work.

The principal medical officer, Col. Stevenson, informed us that we could either camp below "Gun Hill," near to No. 9, or could go to the south-west of Bloemfontein about a mile and a quarter from the town, and after a walk over the whole of the ground around the town, we decided in favour of the latter site and never had cause to regret it.

For some time before we arrived there had been great difficulty in obtaining a supply of water, for owing to the loss of the water works Bloemfontein was dependent entirely upon the spring from which the town takes its name—"the Bloemfontein"—and upon wells and dams. These gave a wholly insufficient supply of doubtfully pure quality, and, in addition, every drop of water for all the troops and for the numerous buildings utilised as hospitals had to be pumped into water carts and taken very considerable distances by road. Fortunately, a few days before our arrival the Royal Engineers had re-opened two wells at the depth of 140 feet and 160 feet respectively, to the south-west of the town, and, after sampling the water, we at once decided to camp near it, for it was impossible to over-estimate the value of good water, and the ground near to the wells was fresh and clean, not having been previously occupied by any troops. It thus came to pass that the Portland Hospital was ere long erected in "The Park," for that was the name given to the open veldt on that side of the town.

Our stores were detained on the morning of 14th



GENERAL VIEW OF BLOEMFONTEIN LOOKING SOUTH.

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April, and were some of them sent up to our camping ground by a traction engine that day. Most of them, however, did not arrive till after nightfall on a dark and wet night, and it was late before we had off-loaded the sixteen ox-waggon which carried our equipment. Next day—Easter Sunday—we had a busy time, pitching tents and unpacking a few things, but the afternoon brought with it a tremendous thunderstorm and a perfect deluge of rain, and made a horrible mess of much of our ground. We had already dug trenches round our tents, but the next day we had to dig long drains to carry off the water that trickled down the hillside, and which would have flooded us had we not been on sloping ground where it quickly flowed off.

We had a good deal of wet the next few days, but there were fine intervals, and when the sun came out things dried very quickly, so that we were able to go on pitching camp and unpacking stores, and although we were a good deal delayed by the wet, we were yet able to take in over 40 patients on 21st April.

The rain that had fallen had certainly impeded us, and had soaked the camps of the troops, who had all too few tents and shelters, but it had its advantages, for it filled up the dam at the entrance to the town and replenished all the springs and wells, so that there was a better supply of water. It had also a more far-reaching effect, for, by providing an abundant supply of water in the dams and vleis throughout the Free State, it greatly facilitated the march of our armies in their advance north.

Our new site was on the slope of a hill. The ground was covered with a thick crop of short grass, and the soil was light, though it soon became muddy and sticky when there was rain, and did not easily soak up water. Near to the camp, and between it and the town, was a cluster of willow trees, which were all the more noticeable because of the bareness of the surrounding country, and past them a road or track ran to the south side of the town.

Our camp faced nearly due north, and looked on to the hills on the slope of which the recent parts of Bloemfontein are built. On the flatter ground below, where the hills rise from the veldt, were the tents of the 6th Division, and a little further and to the left was the camp of the Cavalry Division. Further on the right lay the tower of the Government buildings, and still more to the east was the President's house, lately the residence of President Steyn. In this direction also the turreted mountain top of Thaba N'chu rose, and looked only some fifteen or twenty miles away, though really it was more than forty.

To the south-east of our site, about a mile and a half away, lay the tents of the Highland Brigade and of the Artillery Camp, together with the encampment of a regiment of Colonial Horse; and in our rear, towards the south, was the open veldt stretching away to Leeuw-Berg and Brandtkop and the trees of Holden's farm. To the west and close to us was the camping ground of No. 8 General Hospital, and over the hill, up which their tents reached, lay an artillery camp near to the Kimberley Road.

We were indeed very well placed, being in open country and surrounded by the various divisions, yet at the same time having a clean and healthy camping ground placed not too far from the town.

The general health of our troops at Bloemfontein was at this time certainly bad, and very large numbers of men were daily going sick with enteric fever, whilst almost every one suffered, more or less, from diarrhœa, and there was a good deal of dysentery. For the explanation of this we must go back a little.

Before our army left Modder River Camp there had been an increasing amount of enteric fever, and not only were many cases left behind, but it is practically certain that many men already infected marched out with the army and did not develop the disease for perhaps a week



PORTLAND HOSPITAL, BLOEMFONTEIN, 1900.

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or a fortnight. It is very probable that the Modder River water below Paardeberg was infected by the Boer force, for there was certainly a good deal of enteric fever amongst the Boers whom we captured there, and no doubt more of our men became infected near Paardeberg, so that when we arrived in Bloemfontein we took with us into that place both men already suffering from enteric fever, as well as others who were to develop it within the next few days. There is of course no doubt that many of the sick men infected others, for they often remained in the ranks until the disease was well advanced, and where men are feeding together and using the same utensils, there are abundant opportunities of contagion.

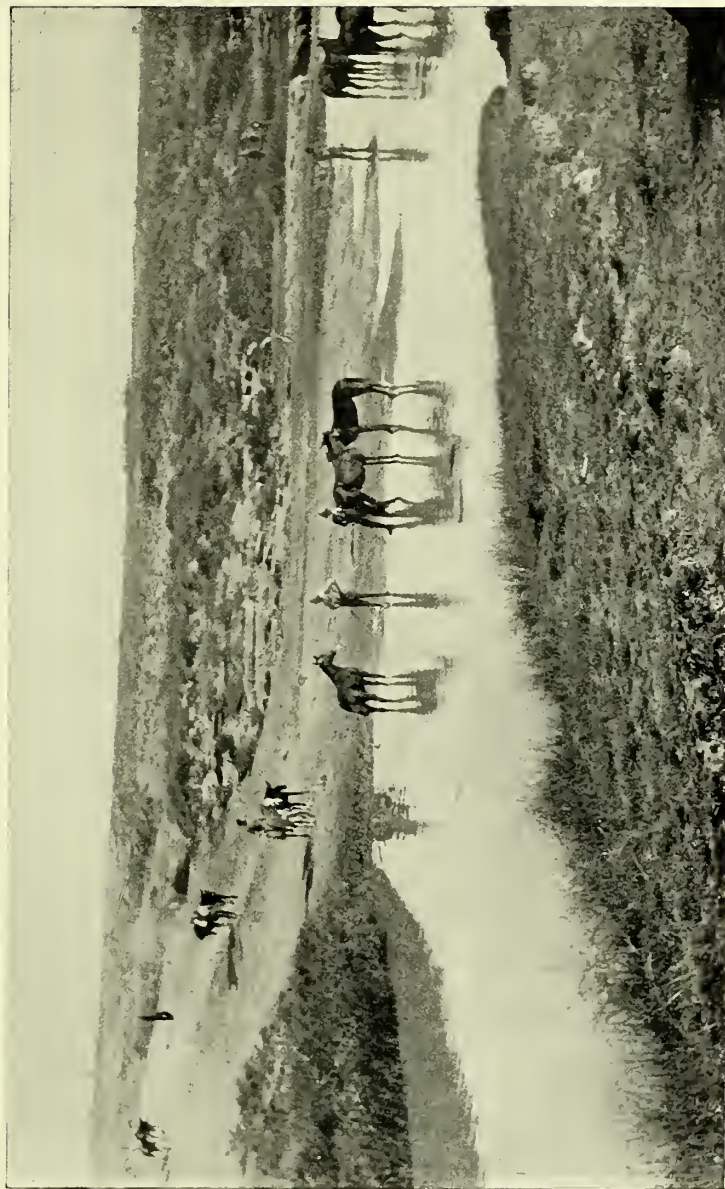
In the next place, and apart altogether from enteric fever, the men had had a very trying time, with long marches and short rations, and both great heat and much wet to make matters worse. When our army reached Bloemfontein the clothes of many of the men were worn to rags, and their boots were in shreds, while the destruction of the Orange River bridges and the injury to the railway line prevented any tents from arriving for some time, and left the men camped on a wet and muddy soil, on which many of them had to lie at night in their wet clothing. It is easy to understand how diarrhœa and dysentery increased under these conditions, for some time elapsed before the repair of the bridges and the restoration of the railway line allowed of the transport to the front of the tents and stores, which were in such abundance only the other side of the Orange River.

Under these circumstances the Field Hospitals quickly became crowded, and as fast as the various Civilian and Army Hospitals opened their beds they were filled with patients. A large proportion of the latter were sick, but we also had many wounded sent to us from the fighting which took place towards De Wet's Dorp and Thaba N'chu.

On 21st April we took in 42 cases from one of the

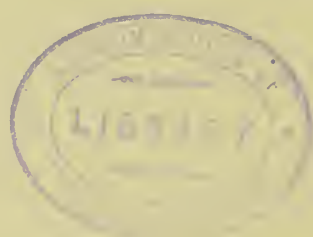
Field Hospitals, and a few days later one of us (Mr Bowlby) went, together with Mr Makins, to the camp of the 9th Division near the water-works, to see some badly wounded men. "Sanna's Post," where the water supply is taken from the Modder River, is about 24 miles from Bloemfontein, and had been recaptured by our troops on the 22nd, after which there had been more fighting on the way to Thaba N'chu. We had had a good many men wounded, and the officers of "Marshall's Horse" had suffered most severely. One of them was dead, and the officer in command and three others were more or less severely wounded. One of them was well enough to travel, so he, with several waggon loads of other sick and wounded men, was sent off to the Portland Hospital in the evening, and a few days later the remaining two officers and a private, who as it proved was fatally injured, followed them. It was on this occasion that we first made the acquaintance of the Indian Tongas presented to the army by Mr Dhanjibhoy, and especially built for the rapid conveyance of the wounded. They proved very comfortable ambulances, and were of much service, though they were too small to take comfortably more than two badly hit men. Their springs, however, were very good, and they took patients with much less shaking than any other form of vehicle.

The ox-waggons, especially those that had springs, were both capacious and comfortable on good roads, and, where patients who had to lie down could be supplied with plenty of hay, straw, or grass for bedding, there was little to complain of. There was, however, much, though unavoidable, suffering caused to men with broken bones in places where the road was stony and rocky, and especially where the track crossed a spruit or watercourse with steep banks and a rocky bed. At such places even a carriage with perfect springs would have jolted and bumped, for none of the roads are macadamised, and no attempt is made to move away even the most obvious



THE DRIFT ON THE MODDER AT SANNA'S POST.

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loose rocks and stones that are so freely littered in many places.

With all the ox-transport it is the custom to make night journeys, for thus the oxen both feed better by day and do their work at night when the weather is cooler, and thus it happened that convoys very frequently arrived at hospital at night-time and in the early hours of the morning.

On 29th April we took in another convoy of 30 men and officers, most of whom belonged to the cavalry and had been wounded some thirty miles away: there were also a few sick.

The convoy included six Boers, five of whom were more or less severely wounded. They were all Free Staters and well-built, healthy-looking men. Three days later some more wounded men and a Boer lad of 22 shot in the thigh arrived late at night, and all the time more cases of sickness, amongst which were many patients with enteric fever, continued to arrive from the camps around us. Our hundred beds had become all too few, and, as accommodation for officers was everywhere difficult to provide, considering the large number going sick, we increased our beds to 130 for non-commissioned officers and men, and 30 for officers. In order to do this we had to obtain two large ordnance store tents, which we utilised for enteric patients, and to fit up a tortoise tent with stretcher-beds and straw for more convalescent cases. The ordnance tents proved excellent—they were 60 feet in length and 30 feet in breadth, and were airy and high, and, though never intended for patients, they made excellent wards for 18 beds each. They were pitched in the rear of the camp so as to be as much isolated as possible, and the only drawback to them was that they were made of single canvas; this made them rather cold at night, and although the weather was no longer hot, the sun was sometimes too warm for a single layer of canvas in the day-time.

On 4th May one of us (Mr Wallace) went, together with

Mr Makins, to join the 9th Division at Brandford and Winburg, in the general advance to Pretoria, remaining with one of the Field Hospitals for the next fortnight, and then returning with a large convoy of sick and wounded.

All the month of May sickness was rife, and enteric fever spread with increasing rapidity both at Bloemfontein and amongst the troops marching north. The weather from 18th April had been very fine and bracing, with brilliant, sunny days, and clear, cool nights. Ever since our arrival we had been troubled with myriads of flies, and as the country became drier, there was also a great deal of dust. The flies, it appeared, had come with the army, and we were assured by residents that in other years there had never been many flies at any time. We thought ourselves that they were very harmful in conveying disease, and knowing how they swarmed over the worst cases of enteric fever, we viewed their presence on every article of food with much distrust. Considering also the very soiled condition of the ground near to the various large camps, we felt that there was much danger in the dust which was sometimes very bad nearer the town, and in its streets. It should, however, be noted that typhoid fever never assumed a serious aspect amongst the civilian population, even when at its worst amongst the troops in camp.

There can be no reasonable doubt that many camps became regularly contaminated, and in the case of the 6th Division an immediate improvement in the health of the troops resulted when the General in command, at the instigation of the Principal Medical Officer, changed the camping ground of every regiment. All of them were moved at least a couple of miles away, and one regiment was camped out at the water-works 24 miles distant.

In certain camps an immense proportion of the men and officers went sick with enteric, in spite of every precaution being taken to boil or otherwise purify the drinking water, and we thought that if all the camps could have been shifted after the bulk of the army marched for Pretoria, it



BOERS GIVING UP ARMS AT WINBERG.



AN ARMY AMBULANCE WAGGON.

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would have been a very good thing from a sanitary point of view.

It is perhaps even now hardly realised how large a number of our troops went sick in a very short time. We were told by the medical authorities that on 4th May, when the army was *en route* to the Transvaal, there were 4500 sick and wounded left at Bloemfontein, and that by 28th May the number of men unfit for duty had been increased to 11,000. No wonder that it was difficult to provide accommodation and hospital equipments sufficient to keep pace with so rapidly rising a tide.

The difficulties indeed were liable to be increased in another way, for not only was it difficult to supply fresh orderlies in proportion to the increasing number of patients, but a very large number of orderlies, of servants of sick officers, and of soldiers detailed for hospital work, contracted enteric fever from attendance on the sick.

The reality of the risk run by the orderlies may be gathered from the fact that nine out of our twenty-four men were attacked, and of these one died. One of our sisters was also infected, but made a good recovery. In the face of these risks the behaviour of our orderlies was beyond all praise. They were all St John's Ambulance men, and had had no previous experience of hospitals or sick people. They proved a most excellent lot, and were most keen to learn to nurse.

It was quite surprising to us to see how little they seemed to fear being attacked, though they could not help knowing that the risks were very considerable; and this was all the more noticeable, of course, because they were not used, like ourselves and the sisters, to see sickness and death; at the same time it was all the more creditable. The conduct of the men was indeed most praiseworthy. They came out to nurse for six months, and at the expiration of that time, with one exception, they all stayed on when it was found that their services were needed for a longer period. They seemed to think

that they were bound to see it through, and they proved willing and helpful till the end of our stay.

It is impossible to speak of the troops at Bloemfontein and of their sufferings without alluding to the work of the Red Cross Society. Down at Rondebosch we were ourselves nearly quite independent of it, but up at the front things were different, and, owing to special trucks being placed at the Society's disposal for transport of goods from the base, it was enabled to obtain supplies of food and clothing and hospital appliances which were much needed by all. We owed a large debt of gratitude to Colonel Ryerson, the Canadian Commissioner, who was in charge of the British Red Cross stores, for much assistance when it was most needed, and when we were called upon to enlarge our hospital we obtained from him invaluable supplies of kit, and, at a time when it was difficult to get much milk and "medical comforts," we drew from the Red Cross depôts supplies of all kinds, which we could not then obtain elsewhere. The Society seemed at all times to have just what was most wanted, and its stores seemed inexhaustible, though it was not always easy to get them to where they were most required.

The month of June found us still busy, but the closing days of May had brought with them some keen, frosty nights, cold enough to cover our water buckets with ice, and cold enough, as we soon found, to kill most of the flies. The townspeople had always been very positive as to the departure of the enteric fever when the cold nights set in, and we had been told by many people that the previous epidemics had always ceased after the winter frosts. It was at any rate certain that the decrease of the fever was coincident with the fall in temperature, and by the middle of June there was a very rapid decline of the epidemic. It ceased almost as suddenly as it had begun, and by the beginning of July there were very few fresh cases.

It has already been mentioned that we admitted several convoys of wounded from the fighting east and



LADY ROBERTS'S WARD.

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south of Bloemfontein, and then, during the few weeks that were occupied in the advance of the army to Pretoria, wounded as well as sick men came in from the various skirmishes. Consequently, as the hospitals were very much crowded, Lady Roberts arranged for the conversion of the ball-room at the Residency into a ward for wounded, and fitted it up with 36 beds. It was under the charge of Major MacMunn, and one of us (Mr Bowlby) was asked to act as consulting surgeon to it. The extra beds came in very useful at a time of great pressure, and the room made a most excellent ward, and was much appreciated. At this time also the various consulting surgeons were either with the advancing army, or else had returned to England, and it therefore happened that, owing to the courtesy of the staffs of most of the other hospitals, we saw many of the most serious cases in consultation, whilst the services of one of us (Dr Tooth) were similarly requisitioned in cases of enteric and dysentery.

As at Rondebosch, so also at Bloemfontein, many of the officers of the R.A.M.C. and the civilian surgeons attached to the military hospitals did everything in their power to enable us to see all that there was to see of military surgery and medicine, and we in turn were glad at all times to offer them whatever hospitality the Portland Hospital could afford.

With the month of July came empty beds and empty tents, and it seemed difficult to believe that the whole of the sickness and over-crowding should have come and gone in three short months. Yet such was the case, and it thus happened that we found ourselves with nothing to do at Bloemfontein but look after convalescents, so we placed ourselves in communication with the military authorities in order to ascertain what might be required of us, informing them that we were prepared to stay until September if our services were required, but that three of the existing staff would be obliged to return to England in October. We heard in reply that it had been decided not

to send any more hospitals to the Transvaal, and that there was no present need for the maintenance of so many beds as had hitherto been required, so, as the time for which the Portland Hospital had been authorised had already expired, and the contracts with our orderlies and sisters were running out in August, we reluctantly were forced to the conclusion that we must bring our work to an end.

At the end of July, therefore, we arranged to sell all our kit and remaining stores. The Ordnance Department bought our tents, and there was keen competition between the officers in neighbouring camps and the townspeople for the purchase of blankets, linen, and eatables of various kinds. We also found ready purchasers for drugs and surgical dressings, and if our stores had been in much greater quantities than they actually were, we should have had no difficulty in selling them all, for Bloemfontein had been practically cleared out by the Boers, and the difficulty of getting up fresh supplies by the over-worked railways had left every one for miles around very short of all kinds of household goods.

It thus happened that two of the staff (Dr Tooth and Mr Calverley), together with the nurses and orderlies, took charge of the hospital and invalid officers on board the transport *Canada*, whilst Surgeon-Colonel Kilkelly was appointed to the post of Principal Medical Officer to the Yeomanry Hospital at Pretoria, and Mr Bowlby went to Natal and visited many of the hospitals in that Colony.

The work done by the Portland Hospital during its stay from December to July may be very briefly summarised. It admitted 1009 officers and men, and of these, 37 died, 159 returned to duty, 303 were discharged to convalescent camps or hospitals, 98 went to England, and 412 were transferred to other hospitals at the base.

The general results obtained in the treatment of the wounded were very satisfactory. Altogether we admitted into the Portland Hospital 303 surgical cases, and of these only three died: one of them was an officer who had been



TEA IN CAMP, BLOEMFONTEIN.



PORTLAND HOSPITAL FOOTBALL TEAM.

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shot through the lung and spinal cord, and was paralysed from the neck downwards; another was a man shot through the brain, who survived the injury nearly a week; and the third was a man with gangrene of his leg, who died from gangrene of the other leg, due to formation of a clot in the abdominal aorta, a week after one limb had been amputated.

All the other patients recovered, and in none of them was it found necessary to amputate either upper or lower extremities, though in some cases the saving of the limb was not at all an easy matter. The fact that our patients were practically all treated in the open air, and that our tents were never crowded, no doubt had much to do with the fact that nearly all the wounds healed without suppuration, and that there were no cases of erysipelas or other forms of septic poisoning.

STATISTICS OF SURGICAL CASES.

Gunshot Wounds:—

Spine and Back	7
Abdomen	12
Head and Neck	24
Thorax	10
Joints	18
Lower Extremity	82
Upper Extremity	57
Various Injuries, including Fractures	36
Surgical Diseases	57
Total	303

A VISIT TO THE CAMP AT MODDER RIVER

By HOWARD TOOTH, M.D., F.R.C.P.

THE sphere of action of the Portland Hospital was not confined to the treatment of the sick and wounded within its own boundaries, for when work was slack in the hospital, individual members of the staff were sent up to the front on several occasions, when the medical authorities thought their services were needed.

The following is a short account of a visit of one of us to Modder River Camp in February, shortly before the general advance under Lord Roberts which resulted in the relief of Kimberley, the capture of Cronje's laager, and the occupation of Bloemfontein.

It is the object of the writer to show something of the inner life of the great camp as it presented itself to a civilian, actuated, moreover, by a spirit of friendly criticism.

I arrived at Modder River some time after midnight on 6th February; we had passed through a blinding sand-storm a few hours before at Graspan, an interesting but unpleasant example of one of nature's moods. After a wholly inadequate wash, soon after daybreak, my servant and I were trudging over a vast sandy plain in bright hot sunshine, in search of the Guards' Brigade Field Hospital. It was in a scene full of life and interest that we found



BATHING AND WASHING CLOTHES AT MODDER RIVER CAMP.

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ourselves—tents, soldiers, horses, as far as the eye could see. Bugle calls sounding chastened by distance, long lines of patient horses being walked down to the Modder to water, amidst clouds of dust. A martial scene in every sense of the word, but how different from the preconceived picture! Where was the colour so dear to the military artist? Monotone only, and that khaki—ground, river, trees, tents, men, and horses, all the same. Blue sky, and not always that; everything else yellow. Away to the north, softened by distance, lay the forbidding Magersfontein kopjes full of sinister reminiscence.

Across the plain we laboured, ankle deep in soft dust, until we came to the Modder, rightly so named, the colour of pea soup. The Modder and the Riet rivers join near the railway bridge wrecked by the Boers, the two rivers thus embracing an area of land on which was encamped the Guards' Brigade.

I was received with the utmost kindness by Col. Magill, Principal Medical Officer of the Guards, and by his colleagues; and I very soon found myself quite at home in a comfortable bell tent, properly trenched, and with a double roof, through which, however, the heat rays beat mercilessly.

A stretcher and two boxes served for a bedstead, and a very comfortable one too.

Our tents faced the outposts opposing Magersfontein, and in the mornings we could see our 4.7 guns shelling the enemy, and at night the search-lights were busy signalling to Enslin from the beleaguered Kimberley. Immediately in front of us lay the Guards' Camp, full of interest to the civilian.

A Field Hospital is a very simply constructed unit. Except the Bearer Company, it is the most mobile of the medical appurtenances of an army in the field. It must be ready to follow its brigade at a moment's notice. Lightness of transport, therefore, is of the first importance.

Its tents are of the regulation bell pattern, to contain

6 or 7 patients. There is one larger, but light, square tent for operation purposes, also used as a mess tent for the officers.

Its staff consisted of the Colonel and three Surgeon-Majors of the Guards' regiments, a Quarter-master Captain of the R.A.M.C., 7 non-commissioned officers, 3 corporals, and 14 orderlies, making with supernumeraries a total personnel of 40.

The transport consisted of 10 so-called ambulance-waggons, of the usual army pattern. These were also service-waggons, as we were unpleasantly reminded by an order, issued on the arrival of the Commander-in-Chief, that all Field Hospitals were to be reduced to 2 waggons only, the remainder being requisitioned for general transport purposes.

This use of waggons for two such different services results in the production of a vehicle which is unfit for one or both of the purposes to which it is put. For the wounded it should be light, with comfortable springs, in which case it is not fitted for heavy transport. A carriage that could be used for both services seems, on the face of it, an impossible dream, even if it were advisable at all. The medical service should be supplied with its own inalienable means of transport, something after the fashion of the Indian tonga, or the ambulances used by the Australians or Yeomanry in this war. The spectacle of 8 or 10 mules dragging two lying down wounded men is not a credit to the authorities, either from the point of view of expediency or economy.

The daily life of the medical officers of the hospital, though perhaps somewhat monotonous to themselves, was full of interest to the visitor. The mornings were taken up with visiting the tents full of sick and wounded patients, most of whom were lying on the ground, unless very ill, in which case they enjoyed the luxury of a stretcher. Everything was done that could be to make them comfortable, but the intense heat, the in-

tolerable nuisance of flies, and the frequent sand-storms, combined to make a pitiable picture of human discomfort. Enteric fever was becoming a serious matter at that time, and all day long fresh cases were being brought in, and the hospital was rapidly growing larger. In the same tent might be found enteric fever, dysentery, sunstroke, to say nothing of minor ailments, and a large batch of wounded came in from Koodoos' Drift while I was there, mostly shot in the legs and feet. The surgeons were most assiduous in their attention to their patients, and there was little time for relaxation. We found time, however, for an occasional ride in the afternoon, or a visit to the outposts, or even for a quiet angle in the Modder.

The evenings were very pleasant. After dinner we sat and smoked outside the mess tent, and the nights were something to be remembered. The glamour of the African night must be felt, it cannot be described. All round the horizon the noiseless lightning would be playing, feebly imitated by the search-lights of the signallers. The brilliant moon and stars, and the general hush over the great camp, made it difficult to believe that we were in the theatre of a bloody war.

But life was not always as agreeable as above pictured. Every now and then the whole plain would be swept from end to end by a gale of wind, bringing with it a vast cloud of fine sand. This also must be experienced to be properly appreciated. A sand-storm approaches its victims as a huge yellow wail, and in a moment they find themselves in the darkness of a London fog, coughing and sneezing, and breathing and swallowing an ill-smelling reddish dust which would find its way through the best constructed tent in the world. To the initiated, however, the sand-storm has other terrors beyond those of mere physical misery, for this sand is the vehicle for the transmission of disease germs of all sorts. When such a storm is in progress meals are out of the question, and in fact

there is nothing to be done but to cover one's mouth and wait until it is over. We believe these storms and the other pest of flies to be important factors in the spread of enteric fever.

The arrangements for the accommodation of the enteric fever patients were perhaps the best that could be made in the circumstances. The Field Hospitals received the patients first, and then, as soon as the diagnosis was made, they were removed to the school-house and another building near the station, where they were accommodated with beds or stretchers. Here also there were four nursing sisters, and more comfort than could be given in a Field Hospital. The officers were put into a pleasant little house on the banks of the Modder, where they were well looked after, and one of the Guards' officers was in a room behind the Station Hotel, which was the head-quarters of the staff.

It is needless to say that these buildings soon became quite full, and then the Field Hospitals had to go on filling up and adding tents; a foretaste of what occurred on a far larger scale at Bloemfontein afterwards.

It must be borne in mind that Lord Roberts had now arrived on the scene, that a general advance was daily, almost hourly, expected, and that such an advance must be shared by the Field Hospitals, which were still glutted with sick men, and yet were compelled to empty. The buildings were full. The nearest Stationary Hospital was at Orange River, 40 miles away, but the daily cry was to evacuate, and it became imperative to send down the line large batches of sick men, many, of course, in the early stages of enteric fever. It was regrettable that such a course was necessary, but what other course was possible, save the establishment of a fully-equipped Base Hospital at Modder River, which would soon have been useless?

Compared with the terrible epidemic at Bloemfontein, this of Modder River appears almost insignificant, if looked at from the point of view of numbers. I have copies of

the daily returns between 29th January and 6th February, kindly furnished me by the Principal Medical Officer, Col. Townsend, showing the number of cases in each unit of the forces encamped. On 29th January the return was 97 and 17 deaths. There was a daily increase, so that on 6th February there were 156 cases reported and 27 deaths. I could not get any more returns, but these figures will serve to show the rate of increase and mortality. Lord Roberts arrived on 8th February, and the camp rapidly emptied for the forward movement to Klip Drift, 13th February.

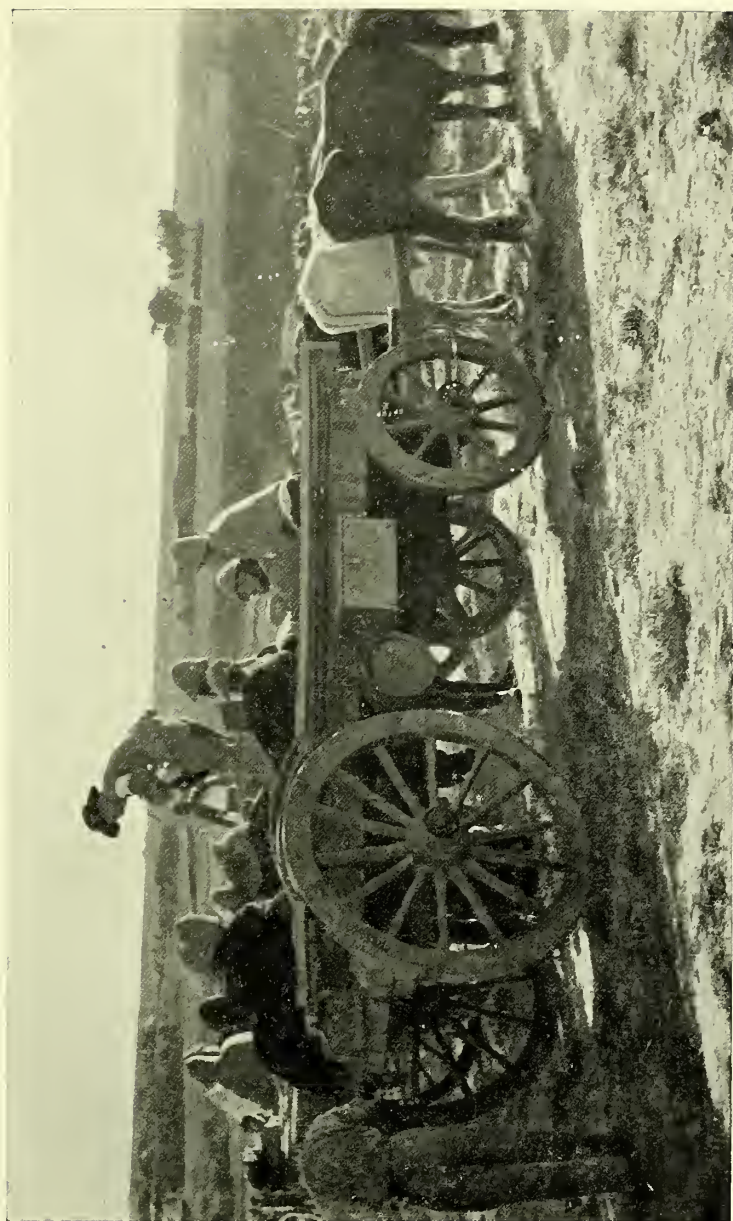
But these figures, though comparatively small, are deeply significant in the light of after events. It is popularly supposed that the fearful outbreak of enteric fever at Bloemfontein was the direct outcome of the halt at Paardeberg, the antecedent events at Modder River being overlooked. Paardeberg was surrounded on 17th February and captured on the 27th. Foul as Cronje's laager was found to be, it is not stated that there was much enteric fever there, in fact I was afterwards told by a Boer doctor, who ought to have known, that there was not much of the disease amongst the Boers, at any period of the campaign. Without then denying the possibility of the Paardeberg incident having a share in the infection of the troops, it seems more reasonable to look upon the Bloemfontein epidemic as the natural consequence of that of Modder River. For all through the march, which took about 28 days, men were falling sick and infecting others, and it is practically certain that the troops took the enteric fever with them from Modder River Camp, and that it continued to spread amongst them all the way to Bloemfontein, where it finally blazed up with increased virulence as soon as the army was stationary in camp. With these remarks I conclude my account of my stay at Modder River. On 16th February I left, with much reluctance, this interesting scene.

THE MEDICAL WORK

By HOWARD TOOTH, M.D., F.R.C.P.

IN a medical report of the doings of the Portland Hospital the most important place must be given to the consideration of enteric fever, without which scourge, it must be remembered, the medical casualties of this campaign would have been comparatively insignificant. It is scarcely within the province of the present report to discuss the ætiology of enteric fever, yet a few remarks on the spread of the disease as it presented itself to our experience may not be out of place here. One of us had the opportunity of investigating the outbreak among the troops encamped at Modder River before the general advance by Lord Roberts, and in addition to this, our knowledge was gained principally from the experience of the hospital encamped at Bloemfontein when the epidemic was at its height.

Apparently for some years enteric fever has been endemic in South Africa. As in England, the disease lies dormant during the winter months to reappear with the warm weather, and it is therefore reasonable to assume that the disease was not brought out by the army, but acquired in the country. The experience of the Guards in this connection is instructive. By the kindness of Col. Magill, Principal Medical Officer of the Guards' Hospital at Modder River, one of us was shown the admission and discharge book of the hospital, and it was



AN OX-WAGGON WITH WOUNDED AT SANNA'S POST.

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evident from this that enteric fever was almost unknown until about 25th December, though the Guards had been fighting and marching for a month before that date. About this time four cases were recorded in men of the same company, who were known to be friends, and who had drunk water at a farm, and therefore were probably all infected at the same time. From the date of this commencement enteric was a common feature in the daily record.

When troops are on the march, or constantly shifting camp and sending their sick to the rear, the number of cases of illness appears to be comparatively small, but when troops are massed in large camps the outbreak assumes the proportions of a serious epidemic. This was the experience at Modder River and afterwards at Bloemfontein, but the Bloemfontein epidemic was by far the most serious for the following reasons. The troops that marched there were those that had encamped at Modder River Station, and many were already tainted deeply with the disease, which they had contracted there; there can be no doubt that many a man started on the march from Modder River with the disease upon him. When to this is added the privation of a forced march, the heat of the summer and short rations, the extreme severity of the cases may be easily understood. Regarded in this light the epidemic of Bloemfontein was the natural sequel of that of Modder River Camp and not of the delay of Paardeberg.

The spread of the disease among troops encamped is, however, the question now requiring discussion. As before remarked, an epidemic does not appear to assume alarming proportions while an army is on the march, but the conditions among troops encamped are very favourable for the dissemination of the disease, and this was especially the case in the camps now under consideration.

The most obvious factors in the spread of the disease are :—

1. *Water*.—The *water supply of the Modder River Station Camp* was in the main that of Modder River, but that of the head-quarter staff, which was lodged at the hotel near the station, was a well behind the hotel. This water was clear, and looked good, but the chemical analysis was less favourable than that of the river itself. The troops generally drew their water from the river. This water was thick and muddy, but not unpalatable even in its natural state. It was liable to contamination from various sources in its course, mainly dead horses, and possibly dead Boers; moreover there was said to be enteric at Jacobsdal, on the Riet, which joins the Modder below the railway station. The water from this river was also used, but to a less extent than that of the Modder. Various methods were used by many regiments to purify the water drawn from the Modder; these were boiling and clearing by the addition of a small quantity of alum, and filtering by the Berkefeldt and Pasteur filters; but in spite of all precautions the vast majority of soldiers filled their bottles straight from the river above the drift. Latterly some six or seven wells were sunk about 30 feet from the river, but these do not seem to have been used very much.

The *water supply of Bloemfontein* was very restricted at first from the fact that the water works were in the possession of the enemy for about a month and were only recaptured on 22nd April, so that until early in May Bloemfontein spring and certain wells were the only source of supply. Of these the spring was the most important. It is situated to the west of the town close under the Residency. The water looked clear and good, but the chemical analysis was unfavourable. There was a large donga about 50 feet from it, and at a slightly higher level than it, but separated from it by a high bank. There was no reason to suppose that there was any communication between the spring and this donga, but it must be noted that the donga was formed by the confluence



ORDNANCE STORE TENTS, used as Wards for Enteric Fever
at Bloemfontein.

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TUBE WELLS AT BLOEMFONTEIN.

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of two smaller dongas which practically drained a large camp area west of the town, occupied, in fact, by the whole of the 6th Division; also that on the banks of one branch was a Field Hospital with at least 60 enteric cases in it at the time of observation. These dongas are dry in the dry season, during which time they accumulate a great quantity of refuse, fæcal, and other dangerous matter, but when the rain comes they become torrents for a time, as we had ample opportunity of seeing for ourselves. We cannot therefore exclude the possibility of contamination of the Bloemfontein spring, though it is scarcely probable.

Close to the site chosen for the Portland Hospital Camp, near a clump of trees known as the "Willows," were two tube wells from which, after 12th April, a good supply of excellent water was drawn. Another well was bored close to the "Willows," and these three wells were made great use of by the camps near them, among them No. 8 General Hospital and the Portland. These wells were bored deeply into solid rock, one of them was 160 feet deep, and contamination from surface drainage was practically impossible. Other wells existed in the town and to the east, but of these we know nothing.

After the arrival of the Portland Hospital, one of its staff was placed upon a Board which was appointed to inquire into the water supply and the precautions necessary for checking the spread of the fever, and as a result the bucket system of drainage was ordered to be adopted in all camps and hospitals. This was carried out fairly thoroughly, and the old open trench latrines done away with. After, the water works were taken, and when the supply therefrom was reopened an analysis was made of water from the town main (Appendix G). This was not satisfactory, and it was suggested by us with reason that the mains having been so long stagnant might have become contaminated, so after a time another analysis was made (Appendix G), but this being still

unsatisfactory, one was made of the water from the Modder River reservoir (Appendix G) as a control. This was not above suspicion, but as the possibility of contamination at the source was not great, it is probable that the organic matter as shown by analysis might be only vegetable.

In conclusion, it will be seen that both at Modder River Station and Bloemfontein the water supply was open to question, but it is probable that water did not play a very important part in the dissemination of the disease. This is a matter of opinion only, for as far as we know no *bacterial* examination of the water was ever made, and without that no analysis can be said to be of much value. A consideration of the number of officers suffering from the disease has some value in this discussion. Officers as a rule are much more careful in the matter of drinking water than the men, and in camp many drank nothing but boiled water, yet the percentage of officers affected is probably very high, for at our hospital out of a total of 70 sick officers 33 were cases of enteric fever, that is 47.1 per cent., while the percentage of enteric cases among the sick men was 33 per cent.

2. *Dust and sand storms.*—In our opinion these are very important factors in the spread of the disease. Whenever the wind blew strongly, which it did most days for a time, and sometimes all day at Modder River Station, the camps were smothered in dust. No tent, however carefully closed, could keep it out. The food at such times was full of sand; and bedding, clothes, and baggage were full of dust. The latrines were all of the open trench form at this time, and the atmosphere being intensely dry, the dust from these latrines must have blown about with the rest. In a camp of this size (there were 40,000 men there at the time one of us was there) there must at any time have been many men with enteric walking about, and it is not therefore too much to say that many of the ordinary latrines contained enteric evacuations. Moreover, a day never passed without the appearance of one or more local

whirlwinds, called "sand devils," by means of which light articles, paper, etc., were whirled up high into the air and deposited all over the camps. Under these conditions the water supply as a medium of spreading the disease seems to take almost a secondary position. At Bloemfontein these same forces were at work, but to a less striking degree than at Modder River, probably because the season of the year was less favourable to them.

3. *Flies* seem to have a special attraction to enteric fever patients. In a tent full of men all apparently equally ill one may almost pick out the enteric cases by the masses of flies that they attract. This was very noticeable at Modder River, for at that time there were in many tents men with severe sunstroke who resembled in some ways enteric patients, and it was remarkable to see how the flies passed over them to hover round and settle on the enterics. The moment an enteric patient put out his tongue one or more flies would settle on it.

At Bloemfontein the flies were a perfect pest; they were everywhere, and in and on every article of food. It is impossible not to regard them as most important factors in the dissemination of enteric fever. Our opinion is further strengthened by the fact that enteric fever in South Africa practically ceases every year with the cold weather, and this was the case at Bloemfontein. For though the days after about 10 A.M. are as warm as an English summer day, and the temperature in our tents at mid-day was rarely below 70° F. and often about 80° F., the nights are very cold and often frosty, and with the cold nights the flies disappeared. It seemed to us that the cold weather reduced the number of the enteric cases by killing these pests.

Statistics relating to enteric fever and inoculation.—If these remarks have any value it would appear in the present state of knowledge to be almost impossible to successfully combat hygienically the spread of enteric in any army under similar conditions, and it must be remembered that

these are the conditions under which most of our campaigns are carried on in India, Egypt, and Africa. We therefore turn naturally to the question of the establishment of an artificial immunity in the individual soldier from this greatest of all scourges.

Inoculation against enteric has excited the greatest interest in the medical history of this campaign. Our experience unfortunately covers only a small part of the ground, but such as it is we now record it.

The personnel of the Portland Hospital.—The strength of the Portland Hospital was 41 persons, including sisters and servants. Of these 24 non-commissioned officers and orderlies were inoculated on the voyage out and 4 of the medical staff also were inoculated. Of these all showed the local symptoms well-marked, *i.e.*, pain and stiffness and local erythema. Seventeen presented well-marked constitutional symptoms in addition, *i.e.*, general feeling of illness, rise of temperature and headache. Of the orderlies 9 had enteric fever subsequently, as had also one of the sisters. Two of these orderlies, both of whom had refused to be inoculated, had it very severely, and one of them died; the others had been inoculated, and of these 5 had the disease lightly and 2 fairly severely.

These facts are shown in the following table :—

Personnel.	Inoculated.	Not Inoculated.	Had Enteric.	Died.
Medical Staff . 5	4	1	0	0
Sisters . . . 4*	0	4	1	0
N.C.O.s, Orderlies, and Servants . . } 32	24	8	9	1 †
Total Strength . 41	28	13	10	1

* Two New Zealand Sisters joined the Hospital at Bloemfontein, and were finally replaced by Miss Harland.

† Had not been inoculated.



A TORTOISE TENT.

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Officers and men admitted to the hospital.—We do not consider in these figures patients who were admitted to the hospital as convalescents, and who would appear in our admission and discharge book as enteric cases, but only those who were directly under our care. If we included all the former our percentage of mortality would of course be much lower.

We have notes of 232 enteric fever cases (including those among our own personnel), most of which came under our care while at Bloemfontein. Among these we find that 54 gave a history of having been inoculated before coming out, or on the voyage out, that is 23.2 per cent. of the whole number of officers and men. Of the inoculated cases 4 died, making a percentage of deaths from enteric fever among inoculated patients of 7.4 per cent.

Of the non-inoculated cases 25 died, that is 14.0 per cent.

The total percentage of deaths among our enteric cases amounts to 12.5 per cent. only, and we are inclined to attribute this low death rate to the fact that we were not overcrowded with more cases than we could fairly undertake to nurse and treat.

These results are tabulated as follows :—

ENTERIC FEVER.	RECOVERED.		DIED.	
	Inoculated.	Not Inoculated.	Inoculated.	Not Inoculated
Officers . . . 34	21	12	Per cent. 0	Per cent. 1 = 7.6
N.C.O.s & Men 198	29	141	4 = 12.1	24 = 14.6
Total . . . 232	50	153	4 = 7.4	25 = 14

The percentages in the last two columns represent the mortality of inoculated cases as compared with that of the

non-inoculated patients, and the figures as will be seen are very much in favour of the inoculated.

An attack of enteric fever is supposed to confer immunity from the disease for a longer or shorter period, and in the main this must be true, but in six of our cases there was a distinct history of a previous attack; in one the patient said he had had the disease twice, and in another so lately as a year ago, when he had a very severe attack. If in some persons the immunity conferred by the disease itself is so slight, we can hardly expect very great things from inoculation only in such cases.

Remarks on inoculation.—The figures above given, though small, and our general impression from observation of the individual cases are distinctly favourable to inoculation. There were undoubtedly severe cases among the inoculated, but these were few, and the greater number were mild both as regards symptoms and duration—in fact in several the disease might almost be described as abortive. The mortality at our hospital among inoculated cases, as compared with that of the non-inoculated, was small (7.4 per cent.). There were only four deaths. One man died quite suddenly during convalescence from embolism of the pulmonary artery, another was found post-mortem to have had septic pneumonia, and the other man died of pneumonia which was not apparently septic. Three therefore died of complications.

Inoculation is still on its trial, and even if the larger figures of the whole army, yet to be published, are not so favourable as these, it must not be judged too hardly. The natural immunity possessed by certain individuals on the one hand, and the extremely small amount possessed by others on the other, is so undeterminable that nothing but experiment on the most extensive scale and careful record can possibly enlighten us. In some, for instance, even the immunity conferred by an attack of the disease itself is so slight that they may get it again within a year, whereas numbers of non-inoculated officers and men who



A PORTLAND AMBULANCE.

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AN INDIAN TONGA.

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must have taken the bacilli into their alimentary canals many times have not had the disease. It is on cases which fall between these two extremes that inoculation may probably be of the greatest use.

Simple continued fever.—Where large bodies of troops are encamped, there appear to be always a number of cases of fever without any other distinguishing features. Moreover in certain localities medical men recognise febrile diseases peculiar to those localities of which the pathology is still obscure, such as, for instance, “Kimberley” fever and “Pretoria” fever. No doubt in time light will be thrown upon these diseases, as has been the case with the so-called “Mediterranean” fever. That there is some pathogenic organism or toxin yet to be discovered is of course highly probable. Where enteric fever is epidemic there are generally many such cases, and there are medical officers who refuse to recognise such a condition apart from enteric infection. Without going so far as that, however, we strongly suspect that many of these so-called “simple continued” fever cases are enteric of a mild type, for it must be obvious that if cases can be of so mild a nature as to be walking about until perforation accidentally occurs—the so-called “ambulant” cases—there must be many degrees of mildness between these latter and the severer and unmistakable forms. While the hospital was at Rondebosch we had several patients who, having been returned as “simple continued” fever, were certainly well marked enterics on their arrival from the front. We noticed also a tendency, in many of our cases, to an early fall in the temperature (about the 17th day), and then, after a day or two of normal temperature, a rise to high continued fever and other evidence of true enteric fever.

Of such cases we have 41 on our admission book.

Diarrhœa and dysentery.—These diseases are second in importance only to enteric fever. Diarrhœa was so common as to be almost universal. In the majority of cases it yielded readily to treatment, especially if treated

early. But some cases proved very obstinate, and it was sometimes necessary to send the patient to the base, where he generally recovered. The causes of this diarrhoea are probably more than one.

The soldier is the most careless of mortals in the matter and manner of feeding; it is rare to find, among these patients, a good set of teeth, and the food on the march is necessarily not so good as in camp, and some stomachs do not take kindly to tinned meat and biscuit. The food is liable to be contaminated with sand; in fact, in Africa the men were swallowing sand all day in large quantities, more especially on the march, but also in camp to a greater or less degree. It has been suggested that this gritty matter has a mechanical effect on the mucous membrane of the intestines, and the term "sand diarrhoea" was frequently used. In our opinion, however, the diarrhoea is much more likely to be due to microbes adhering to the sand than to the mechanical effect of it.

The great diurnal variation of temperature must not be overlooked as a possible factor in this affection. It was not uncommon to experience a difference between the night and day reading of 50° F. in the tents, such as a mid-day temperature of 80° F., and a fall at night to 30° F., and this difference must have been still greater in the open air. A catarrhal inflammation of the large intestine due to cold is therefore at least a possibility. In the more chronic cases it is not unreasonable to suppose a simple follicular ulceration of the large intestine, readily curable by local means. It is difficult to say when a case ceases to be one of simple diarrhoea and becomes dysentery—in fact we are inclined to regard the difference as being only one of degree in the majority of cases, in other words, to look upon epidemic diarrhoea as mild dysentery.

If this is so, every case of diarrhoea, however slight, becomes of importance, not so much on account of the patient, but as a possible focus of dissemination of the disease. For there can be little doubt that there is a



PRIZE DISTRIBUTION AT BLOEMFONTEIN.



CAMP CONCERT, BLOEMFONTEIN.

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micro-organism yet to be discovered, and that the disease is probably spread by the same means as enteric fever, therefore similar precautions as regards disinfection should be taken.

Thirty-three cases of diarrhœa were admitted into the wards, many of these, however, convalescent; it is most likely that the great majority of these deserved to be called dysentery. Of unmistakable dysentery 101 were under treatment from first to last. Three of these died, and characteristic inflammation and ulceration of the large intestine was found.

Sunstroke.—Our opportunities of studying this disease were comparatively few, for the hospital was at Rondebosch during the summer months, and this was too far from the front for patients to come in the acute stages, and local cases were not very common. A fair number of patients were sent down as cases of sunstroke, and the disease deserves some notice here. When the hospital removed to Bloemfontein the weather was so comparatively cool that we saw very few cases there. One of us, however, had the opportunity of seeing cases in the early stages at Modder River in February before the general advance.

The work at outposts was at this time very trying, and the heat often intense. The only shelter for the men from the sun was and is afforded by the brown service blankets stretched on short posts; under these the men lay with their coats off, and often their chests bare. It is needless to say that a blanket offers a very poor shelter from the heat rays when a double-roofed tent is almost unbearable.

On their arrival at our hospital at the base, the most striking feature presented by these patients was the great debility, but most of them still complained of headache, generally posterior, and they showed a marked reluctance to leave the shelter of the ward tents. Exposure to the comparatively mild sunshine of the Cape seemed to bring on the headache. They resembled in this particular some

forms of neurasthenia. A few cases made little improvement and had to be sent home.

Diseases commonly attributed to exposure.—Among these may be included catarrhal inflammation of bronchi, lungs, and kidneys, and rheumatism. If exposure to cold is a prime factor in these diseases they should have been very common, for large numbers of men, even at Bloemfontein, slept on the ground night after night with no more protection than a blanket shelter, when the thermometer was considerably below the freezing point. It is true the air at these altitudes is comparatively dry, but there was enough moisture to cause a white frost on most nights, and when the rain fell, the ground, being of clay, became unpleasantly sodden, and the drying process was slow. The large daily variation of temperature, at least 50° F., has been already referred to. The very dress of the soldier would appear to favour these diseases, for it is difficult to imagine a more uncomfortable covering than a wet, sodden cotton drill. And yet in our experience bronchitis was rare. We have notes of only 6 cases, and of these 3 were previously subject to the disease. Of true Lobar pneumonia we saw not one case.

Even as a complication of enteric these affections were rare, strikingly so, compared with home experience. The common cold in the head was rarely seen. We must, therefore, assume that the micro-organisms which probably play so important a part in these diseases do not flourish on the higher plains of South Africa.

Phthisis was still more uncommon, *i.e.*, 2 cases only, both apparently acquired on the voyage out.

Acute nephritis should have been not uncommon if exposure plays an important part in its causation, but we only saw 3 cases, and in these the kidney lesion was almost certainly not acquired during the campaign.

Rheumatism.—We had under treatment from first to last only 15 cases, but it was a common diagnosis among patients received into our hospital convalescent and on

their way from the front to the Cape. The commonest manifestation of this disease seems to consist of pain in the legs without swelling of joints; 11 were of this description. The remaining four had some articular swelling, but without much fever. But of true rheumatic fever we saw no example except one on the ship coming home, and we therefore assume that it was not common.

In considering the remarkable immunity of soldiers on active service from these diseases commonly attributed to exposure, we must not lose sight of certain important points. The age of the soldier is that in which, after initial risk, exposure in a healthy climate might be expected to have a hardening effect, and consequently a diminishing liability to such diseases. Alcohol is not an article of diet on active service, in fact almost total abstinence was the rule throughout the campaign.

The condition of the soldier after a few weeks' active service compares very favourably with that on the voyage out, when cases of pulmonary disease were quite common, even after so slight exposure as sleeping on deck in warm latitudes. The medical officers of the Woodstock Hospital, Cape Town, utilised largely for receiving the sick from amongst troops newly arrived, would probably have a very different experience from ours.

Heart disease may be conveniently considered here. In only one case was it likely that the heart affection was acquired on service, and this was in one of the few cases of articular rheumatism. In the other cases the heart lesion probably dated from a previous attack of rheumatism. Naturally one does not expect to find many cases of heart disease among a selected body of men. We had, however, 8 cases in all; in these the mitral was the valve diseased, 5 with regurgitation, and 3 with stenosis.

Disordered action of the heart is very commonly diagnosed, *i.e.*, palpitation and irregularity of action, but when one sees the debilitated and sometimes anæmic condition of some men after hard service, it is only sur-

prising that functional derangement of the heart is not more common.

General debility.—This somewhat indefinite term includes a number of cases of men obviously unfit for duty, by reason of loss of flesh and general weakness, but without any marked mental or nervous symptoms. There is often distinct anæmia. Many of them suffer from dyspepsia, and bad teeth were very common among them—no doubt a fruitful cause of such malnutrition. The treatment was generally simple and satisfactory; rest and good feeding, iron and strychnine tonic, with proper attention to the digestion, and the result was usually a rapid gain in weight and bodily power. Fifty of such cases appear in the admission and discharge book.

Neurasthenia.—A review of all the functional nervous disorders arising out of this campaign would probably be of the greatest interest. Unfortunately it has not been in our power to make comprehensive observations on this class of disease, those falling under our immediate care being comparatively few. The frequent poor state of general nutrition, the excitement of battle often following prolonged mental strain, and bodily fatigue, must all combine to favour the appearance of functional nervous disorders.

The X-ray Equipment.—In this respect the hospital was very fully equipped. Mr Churchill was so kind as to lend us an Influence machine by Pidgeon. But unfortunately we could make no use of it. The atmospheric conditions at Rondebosch were not favourable to this form of machine, and it was almost impossible to keep sand from covering the plates and collectors with innumerable points of leakage—at least that was the only explanation we can give of the failure to get sufficient tension to give any result with the tubes.

But our experience with the coil was highly satisfactory. We took out two Lathanode batteries of 6 cells each, and of 30 A.H. capacity. These we had charged at the

Rondebosch Electric Light Works only three times in the three months that we were there. We must here express our obligation to the manager of these works, Mr M'Muldrov, for his repeated kindness and help to us in electrical matters. The batteries stood extremely well, and ran the whole time we were at Bloemfontein without recharging, never standing below 12 volts on the voltmeter.

We were, however, quite prepared to charge them ourselves if necessary, for we had a complete generating plant, *i.e.*, a small $\frac{1}{2}$ h.p. horizontal engine, boiler, and dynamo. One of our orderlies was a fitter, and therefore quite at home with the engine, which, though looking at first rather a toy, turned out to be quite up to its work, that is to drive the small dynamo at a speed sufficient to charge the batteries. Strictly speaking, the batteries should have been charged regularly every week at least, but practically we found the loss so slight that we never thought this necessary, especially as fuel was scarce at Bloemfontein.

The coil was one of Apps's of the pattern of which he has supplied many to the War Office. It was capable of giving a 12-inch spark under favourable circumstances. The interruptor and condenser were separate from the coil, which we think a convenience. This apparatus gave us no trouble whatever, except that the platinum contacts wore rather too rapidly, and would in the future be better rather longer.

We took out 12 Crooke's tubes of various makes and resistances, but finding one of them gave satisfactory results, both with screen and photography, we used no other all the time we were out. The Mackenzie-Davidson couch proved of the greatest use: but though we had the localising apparatus, we never had occasion to use it. The whole of this apparatus was arranged on one side of the operating tent, and proved of the greatest value in the diagnosis of the presence and position of bullets, and also in the examination of fractures of bones. In fact we may

safely say that the usefulness of the hospital would have been impaired considerably if it had gone out without the X-ray equipment.

A bell tent was reserved for photographic purposes. In this tent was set up a small dark tent, which enabled us to change plates or even to develop in broad daylight ; but as a rule all X-ray work was done after dark. We had many opportunities of proving the superiority of photography over simple observation by means of the fluorescent screen, though the latter has advantages of its own.



BOER WOUNDED.

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APPENDICES

APPENDIX A.

MEDICAL AND SURGICAL STAFF OF THE PORTLAND HOSPITAL.

ANTHONY BOWLBY, F.R.C.S., Senior Surgeon.
HOWARD TOOTH, M.D., F.R.C.P.
CUTHBERT WALLACE, M.B., B.S., F.R.C.S.
JOSEPH CALVERLEY, M.B., B.S., M.R.C.S.

Surgeon-Colonel KILKELLY, Grenadier Guards, Principal Medical
Officer, and in Military Charge.

Nursing Sisters.

Miss PRETTY.	Miss A. M. DAVIES.
Miss COX-DAVIES.	Miss FRANCES RUSSELL.

<i>Chief Wardmaster</i> . . .	S.-Sgt. NOBLE, R.A.M.C.
<i>Steward and Compounder</i> . . .	Sgt. FARRELL, R.A.M.C.
<i>Assistant do. and Office</i> . . .	S.-Sgt. PEAT, S.J.A.B.
<i>Pack Store and Sanitary Duties of</i> . . .	} S.-Sgt. EVANS, S.J.A.B.
<i>Camp</i>	
<i>Assistant Compounder</i>	S.-Sgt. MACNAMARA, S.J.A.B.
<i>Master Cook—Hospital</i>	S.-Sgt. SAYER, S.J.A.B.
<i>Chef for Officers' Mess and Sick Officers</i>	W. A. SCETTRINO.
<i>Chef for Sick Officers in Hospital</i> .	G. T. EVANS.
<i>Provision and Linen Store</i> . . .	Pte. BOYD.
<i>Assistant Cook</i>	Pte. BUSHELL.
<i>Assistant in Pack Store</i>	Pte. BOTTERILL.
<i>Office Orderly</i>	Pte. COLLINS.
<i>In Charge of Transport</i>	Pte. MITCHELL.

<i>Section A.</i> —Sister DAVIES.		<i>Section C.</i> —Sister RUSSELL.	
Ward 1	Orderly, Pte. BLEASDALE.	Ward 7	Orderly, Pte. HARNESS.
" 2	" Pte. STRATFORD.	" 8	" Pte. SQUIRES.
" 3	" Pte. HOLLOWAY.	" 9	" Pte. POTTINGER.
<hr/>		<hr/>	
<i>Section B.</i> —Sister COX-DAVIES.		<i>Section D.</i> —Sister PRETTY.	
Ward 4	Orderly, Pte. RYAN.	Ward 10	Orderly, Pte. HARPER.
" 5	" Pte. NEWNES.	" 11	" Pte. ELLIS.
" 6	" Pte. COMPSTON.	" 12	" Pte. PALLETT.

Enteric Ward, No. 16.

Sisters CARSTON and GODFRAY, New Zealand, temporarily attached for night duties.

Orderlies, Ptes. MARCHANT, MOORE, and HARRIS.

Enteric Ward, No. 18.

Sister HARLAND.

Orderlies, Ptes. BORER and MATTHEW.

21 Convalescent Tent.—Ward No. 13.

Orderly, Pte. WILSON.

<i>Operating Theatre and Photo Tent.</i>	<i>In Charge of Enteric Linen.</i>
Orderly, Pte. FREEMAN.	Pte. JOHNSON.

Officers' Servants.

Pte. BARNES (Grenadier Guards).	MATILDA CLUTTON (to Nurses).
S. MARKER (afterwards Messman).	I. COLLINS.

Rates of Pay.

4 Supernumerary Officers, St J.A.A.	£1 18 6 weekly.
12 First Grade Orderlies	1 3 6 "
12 Second Grade Orderlies	1 1 6 "

"Extra Duty" pay, at 4d. daily, was given to some for certain extra duties.

"Extra Messing" Allowance, 4d. daily, was given to each N.C.O. and man to improve their messes.

One month's gratuity on termination of contract services, increased later to two months.

APPENDIX B.

FORMS OF CONTRACT.

To the Committee of the Portland Hospital (Red Cross).

I, A. B. C.,

of A. B.,

hereby offer to serve as a Nurse to Her Majesty's Forces in South Africa on the following conditions :—

1. The period of my service hereunder shall commence as from the day on which I shall embark from England, and shall continue until the expiration of six calendar months thereafter, or until my services are no longer required, which ever shall first happen.

2. My pay shall (subject as hereinafter appears) be at the rate of £40 per annum, and a gratuity of £20 at the expiration of my services.

3. In addition to such pay, I shall receive a free passage from England to South Africa, and (subject as hereinafter appears) a similar free passage from South Africa to England at the end of the said period ; and I shall be put to no expense for maintenance, rations, or transport during such period.

4. During the said period I will devote my whole time and professional skill to my service hereunder, and will obey all orders given to me by Commissioned Military or Naval Officers, or by the Permanent Medical Officers of either of those Services, or others who may be appointed as my superior officer or master.

5. In case I shall in any manner misconduct myself, or shall be (otherwise than through illness or unavoidable accident) unfit in any respect for service hereunder, of which misconduct or unfitness the Military Authorities, or those in charge of the Portland Hospital, shall be sole judges, you shall be at liberty from and immediately after such misconduct or unfitness to discharge me from further service hereunder, and thereupon all pay and allowances hereunder shall cease, and I shall not be entitled to any free passage home.

6. In the event of my death or injury by accident or otherwise, neither I nor my relatives or others shall have any claim whatsoever against the Committee or otherwise in respect to my decease or injury.

Dated this 6th day of December 1899.

A. B. C. (here sign).

Witness to the signature of the said

D. E. (Witness).

On behalf of the Committee of the Portland Hospital I accept the foregoing offer.

(Signed) PORTLAND.

FORMS OF CONTRACT—*Continued.**To the Committee of the Portland Hospital (Red Cross).***I,** A. B. C.,

of A. B.,

hereby offer to serve as a First Grade Orderly to Her Majesty's Forces in South Africa, and make myself generally useful, on the following conditions :—

1. The period of my service hereunder shall commence as from the day on which I shall embark from England, and shall continue until the expiration of six calendar months thereafter, or until my services are no longer required, which ever shall first happen.

2. My pay shall (subject as hereinafter appears) be at the rate of 30s. per week.

3. In addition to such pay, I shall receive a free passage from England to South Africa, and (subject as hereinafter appears) a similar free passage from South Africa to England at the end of the said period ; and I shall be put to no expense for maintenance, rations, or transport during such period.

4. During the said period I will devote my whole time and professional skill to my service hereunder, and will obey all orders given to me by Commissioned Military or Naval Officers, or by the Permanent Medical Officers of either of those services, or others who may be appointed as my superior officer or master.

5. In case I shall in any manner misconduct myself, or shall be (otherwise than through illness or unavoidable accident) unfit in any respect for service hereunder, of which misconduct or unfitness the Military Authorities, or those in charge of the Portland Hospital, shall be sole judges, you shall be at liberty from and immediately after such misconduct or unfitness to discharge me from further service hereunder, and thereupon all pay and allowances hereunder shall cease, and I shall not be entitled to any free passage home.

6. In the event of my death or injury by accident or otherwise, neither I nor my relatives or others shall have any claim whatsoever against the Committee or otherwise in respect to my decease or injury.

Dated this 5th day of December 1899.

A. B. C. (here sign).

Witness to the signature of the said

D. E. (Witness).

On behalf of the Committee of the Portland Hospital I accept the foregoing offer.
(Signed) PORTLAND.

APPENDIX C.

SCALE OF CLOTHING FOR ORDERLIES.

1 Great Coat.	1 pair Putties.
1 Serge Suit, Khaki.	1 pair Braces.
1 Drill Suit, Khaki.	2 Flannel Shirts.
1 Helmet and Field Service Cap.	1 Haversack.
2 pairs Boots.	1 pair Canvas Shoes.
3 Blankets.	1 Holdall, with Knife, Fork, Spoon, Razor, Brush.
2 Towels.	1 Jersey.
2 pairs Drawers.	1 Mess Tin.
2 pairs Socks.	

APPENDIX D.

MENU.

Menu of Queen's Birthday Dinner, 24th May.

Soup—Julienne.
Lamb Cutlets. Green Peas.
Sirloin of Beef.
Roast Venison.
Fruit Tart. Cheese Straws.

PORTLAND HOSPITAL.

Menu.

BREAKFAST {

LUNCHEON {

DINNER {

BLOEMFONTEIN.
102

Date

APPENDIX E.

ARMY "HOSPITAL DIETS" AND "EXTRAS."

VII.—Hospital Rations.

Diets on ordinary service.

54. Except at stations abroad where special scales are in force, which are detailed in the local regulations of the station, issues will be made to the patients specified in paragraph 65 in accordance with the following scales, according to the diet upon which each patient may be placed :—

Diets,

(a) DIETS.

ARTICLE.	CLASS OF DIET.						
	Va- ried.	Roast.	Con- vales- cent.	Chicken.	Beef- Tea.	Milk.	Plain Milk.
Meat (Beef or Mutton) without bone . . ozs.	12	8 (steak)	8	half a fowl	8 (beef)		
with bone . . . "	15	10 (chop or joint)	10		10 (beef)		
Bread "	18	18	16	16	14	12	
Salt "	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$		
Tea "	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$		
Sugar "	$1\frac{1}{2}$	$1\frac{1}{2}$	$1\frac{3}{4}$	$1\frac{1}{2}$	$1\frac{1}{2}$	1	
Milk "	6	6	6	6	6	3 pints	3 pints
Butter "	1	1	1	1	1		
Potatoes "	16	8	8	8			
Vegetables "	4	4	4				
Flour . . . . . "	...	...	$1\frac{1}{4}$				
Barley . . . . . "	...	...	$1\frac{1}{2}$				
Rice . . . . . "	...	...	...	...	...	2	
Pepper (every 100 diets "	2	2	2	2	2		
Mustard (every 20 beef diets). "	1	1	1				

Extras.

55. Extras to be ordered when considered necessary for the treatment of the case.

Extras.		Class of diet upon which admissible.
Butter	Bread	All diets except varied.
Eggs	Arrowroot	
Milk	Sago	
Tea	Oatmeal	
Sugar	Rice	
Beef-tea	Sago	
Egg flip	Custard	
Soda Water	
Lemonade, bottled	
Calf's foot jelly	
Customary fruits in season	Upon beef-tea diet when it is found necessary to keep a patient on this diet for any lengthened period, or when there is a tendency to scorbutic taint.
White fish, 12 ozs. gross weight	
Butter, 2 ozs.	Upon varied, steak and chicken diets when ordered by the medical officer to be stewed.
Potatoes, 8 ozs., or	
Vegetables, 4 ozs.	Upon all diets, including varied.
Flour, $\frac{1}{8}$ oz.	
Wines * (Sherry, Port, Tarragona, Claret)	Upon all diets, including varied.
Spirits * (brandy, whisky, gin)	
Malt liquors (stout, ale)	Upon all diets, including varied.
Barley water	
Rice water	For officers' diets, or in exceptional cases, as considered necessary by the senior medical officer.
Gruel	
Lemonade	For officers' diets, or in exceptional cases, as considered necessary by the senior medical officer.
Other articles, in addition to above	

Ingredients.

56. When any of the extras specified in paragraph 55 are ordered, they will be made and charged according to the following proportions :—

Barley-water—barley, 2 oz. ; sugar, 2 oz.	} For every 5 pints of each.
Rice-water—rice, 2 oz. ; sugar, 2 oz.	

Measure of liquids.

* Milk, wines, and spirits are to be calculated at 20 oz. the Imperial pint. The reputed quart bottle should contain $5\frac{1}{4}$ gills, or $26\frac{3}{4}$ oz.

- Lemonade—two large lemons and $1\frac{1}{2}$ oz. of sugar } to every 2
 Gruel—oatmeal, 2 oz., and $1\frac{1}{2}$ oz. of sugar } pints.
 Rice-pudding—rice, 2 oz. ; milk, $\frac{3}{4}$ pint ; sugar, $\frac{1}{2}$ oz. ; egg, 1.
 Sago-pudding—sago, $1\frac{1}{2}$ oz. ; milk, $\frac{2}{3}$ pint ; sugar, $\frac{1}{2}$ oz. ; egg, 1.
 Custard-pudding—milk, 1 pint ; sugar, 1 oz. ; eggs, 2.
 Cinnamon, $\frac{1}{2}$ oz. may be issued for 15 puddings, or one lemon to
 12 puddings.
 Oatmeal, 4 oz. ; with milk, 8 oz.
 Arrowroot, 2 oz. ; with sugar, 1 oz.
 Sago, 2 oz. ; with sugar, 1 oz.
 Egg flip ; 2 eggs with $\frac{1}{2}$ oz. sugar.
 Tea, per pint ; $\frac{1}{8}$ oz. tea ; $\frac{3}{4}$ oz. sugar ; 3 oz. milk.
 Beef-tea, per pint { $10\frac{2}{3}$ oz. meat without bone.
 { $13\frac{1}{3}$ oz. meat with bone.
 { $\frac{1}{2}$ oz. extractum carnis.
 { 4 oz. essence of beef.
 { With pepper and salt as required.

57. The following rates will be allowed for substitutes :—

Substitutes.

- 2 oz. lime juice = 1 lemon.
 3 oz. rice, or }
 3 oz. flour, or } = 16 oz. potatoes.
 8 oz. bread }
 1 oz. preserved potatoes = 5 oz. fresh potatoes.
 1 oz. preserved vegetables = 10 oz. fresh vegetables.
 $\frac{1}{2}$ oz. coffee = $\frac{1}{8}$ oz. tea.
 1 tin condensed milk = $2\frac{1}{4}$ pints.

58. On active service, in general hospitals at the base, and in stationary hospitals on the lines of communication, the scale of diets laid down in paragraph 54 will be followed as far as practicable, and any deviations found necessary, on account of the position, climate, or the supplies obtainable, will be sanctioned by the general officer commanding, on the advice of the principal medical officer. If a special hospital for officers is formed on active service, the scale of issues will be such as from time to time may be ordered by the Secretary of State, or by the general officer commanding in anticipation of his authority.

59. In the event of a soldier not being likely to require treatment beyond that of the day on which he has reported himself sick, he will be detained in the hospital for that day only and subsisted from his unit, to which he will return if considered fit for duty ; but if at the evening visit he is found unfit for duty, he will be regularly admitted and placed on hospital diet for the following day, notice to that effect being sent to the officer commanding his unit.

On active service.

When soldiers are only temporarily treated.

(b) AN ARMY DIET SHEET.

Hospital, at _____		Month of _____		189		
DIET SHEET OF	RANK AND NAME.	Corps.	Regtl. No.	Squadron, Troop, Comp., or Battery.	Age.	DISEASE.
Ward No.	Number in Admission and Discharge Book.	Admitted into hospital.	Discharged from hospital.		CASE BOOK, Vol.	page
		_____189	_____189		Religious denomination }	*

If allowed up, the hours, and if fit for light hospital duty, state so.	Date.	Diet, first time name in full, afterwards by initials.	DIET DRINKS.		EXTRAS.		Initial of Medical Officer (first time, name in full). All spaces in which no entries have been made must be severally ob- literated by the Medical Officer thus before he signs his name or initials.
			Quantities in words.		Quantities in words.		
	1						
	2						
	3						
	4						
	5						
	6						
	7						
	8						
	9						
	10						
	11						
	12						

(c) AN ARMY "SUMMARY OF DIETS."

Diet and Extra Sheet Summary.

Ward No. _____ Division No. _____

Date _____

Description of Diets.		No.	Extras and Drinks.	Quantity.
VARIED	Roast . . . . .	.....	Lemonade	pts.
	Barley Water . . . . .	.....	Barley Water	"
	Stewed . . . . .	.....	Gruel	"
ROAST	Joint . . . . .	.....	Beef-Tea	"
	Chop . . . . .	.....	Puddings { Rice	No.
	Steak {	.....	Sago	"
			Custard	"
			Fruits, Oranges	"
	Stewed . . . . .	.....	Fish	ozs.
CONVALESCENT . . . . .		.....	Milk	pts.
CHICKEN	Roast . . . . .	.....	Eggs	No.
	Boiled . . . . .	.....	Wines, Port	ozs.
	Stewed . . . . .	.....	" Sherry	"
Beef-Tea . . . . .		.....	Soda Water	bots.
Milk . . . . .		.....	Porter, draught	pts.
Plain Milk . . . . .		.....	" bottles	"
		.....	Ale, draught	"
		.....	" bottles	"
		.....	Brandy	ozs.
		.....	Whiskey	"
Total . . . . .		.....	Gin	"

Signature of :—

Orderly _____

Wardmaster _____

(d) DIET TABLE DEVISED FROM RATIIONS AND EXTRAS ON THE FIELD AT BLOEMFONTEIN.

Portland Hospital—Diet Table.

MILK.	BEEF-TEA.	SOUP RATIIONS.	MINCE RATIIONS.	RATIIONS.	
Milk, 4 pints.	Bovril, 3 pints.	Ration meat made into Soup. Vegetables.	Ration meat made into Mince. Vegetables.	Meat, $1\frac{1}{2}$ lb. Vegetables.	Extras as ordered on any diet, and at any time.
Bread, 12 ozs.	Bread, 1 lb.	Bread, 1 lb.	Bread, 1 lb.	Bread, $1\frac{1}{2}$ lb.	
Sugar, 1 oz.	Sugar, 2 ozs.	Sugar, 2 ozs.	Sugar, 2 ozs.	Sugar, 2 ozs.	
Tea, 3 pints.	Tea, 3 pints.	Tea, 3 pints.	Tea, 3 pints.	Tea, 3 pints.	
MEAL.	MILK.	BEEF-TEA.	SOUP.	MINCE.	RATIIONS.
Breakfast.	Milk and Bread.	Tea, Bread and Butter.	Tea, Bread and Butter.	Tea, Bread and Butter.	Tea, Bread and Butter.
Dinner.	Milk and Rice.	Beef-Tea.	Soup and Bread. Vegetables.	Mince. Vegetables.	Meat, Vegetables, Rice.
Tea.	Milk and Bread.	Tea, Bread and Butter.	Tea, Bread and Butter.	Tea, Bread and Butter.	Tea, Bread and Butter.
Supper.	Milk.	Omelette.	Omelette.	Omelette.	Omelette.

EXTRAS.

BREAKFAST.	DINNER.	TEA.	SUPPER.
Cocoa.	Fruit Tarts.	Biscuits.	Soup.
Oatmeal.	Preserved Pears.	Rasin Wine.	Rice
Herrings.	Bovril	Butter	Sago } Puddings.
Bloaters.	Packet Soups { To be added to Stock Soups.	Eggs } when available.	Ovo
Kippers.	Milk or Beef-Tea, as ordered.	Jams.	{ Lemonade.
Haddock.	Chicken.		Drinks { Soda Water.
Sardines.	Turkey.		Wine as ordered.
Butter } when available.	Fish.		Jelly.
Eggs }	Venison.		Milk or Beef-Tea, as ordered.
Jams.	Cheese.		
	Fruits in season.		

C. R. KILKELLY,
Surgeon-Colonel, Grenadier Guards,
in/c. Portland Hospital.

APPENDIX F.

RULES FOR DISINFECTION OF EXCRETA.

METHOD OF DISINFECTION.

Enteric or Infectious Stools.—1. The bedpan to contain $2\frac{1}{2}$ oz. bichloride solution, 1 in 250. This solution will be issued from the surgery to the respective wards as ordered by the medical officer.

2. The stool will then be *covered* with chloride of lime, also obtained from surgery.

3. The bedpan, *covered* by a cloth soaked in carbolic lotion, 1 in 40, will then be taken to the latrine and emptied into a bucket marked **E** in *red letter*, and *covered*.

4. The bedpan will then be washed out, *at the latrine*, with carbolic lotion, 1 in 15, and the washings added to the bucket marked **E**. The orderly will then wash his hands with carbolic lotion, 1 in 40, soap and water, and dry his hands *on his own towel at the latrines*.

5. Urine will also be treated in the same way and emptied into urine bucket marked **E**. The buckets will be emptied twice daily under arrangements made with the sanitary officials, or the contents may be boiled and emptied into pits.

6. *All slops* from washings in wards to be emptied into *slop buckets* provided in each section, and then carried and emptied into *slop pit*.

APPENDIX G.

WATER ANALYSES BY DR TOOTH.

EXAMINATION OF A SAMPLE OF DRINKING WATER.

From Water supplied to Portland Hospital, 19th May 1900.

Source and Possibility of Contamination. Said to be from Modder River Waterworks. Many of the joints of the delivery tube are defective.

Chemical and Physical Examination.

- | | |
|---|--|
| 1. Colour in 6-in. column. | Distinct yellow tinge. |
| Turbidity. | Very considerable, not increased on boiling. |
| 2. Odour. | None. |
| 3. Residue left on evaporation. | Very small, yellowish-white, very slight, charring on heating, no smell, dissolves with effervescence with acid. |
| 4. Free ammonia. | None. |
| 5. Chlorine. | Two grains per gallon. |
| Equivalent of common salt. | Three grains per gallon, about. |
| 6. Nitrites. | A very considerable quantity. |
| 7. Nitrates. | ? |
| 8. Hardness. | Somewhat over 4°. |
| 9. Lead. | None. |
| 10. Zinc, iron, and copper. | A distinct trace of iron. |
| 11. Oxygen absorbed in 15 min. at 212° F. | Between '20 and '30, with brown discoloration. |

Portland Hospital, Bloemfontein, 19th May 1900.

To P.M.O., Bloemfontein.

DEAR SIR,—From the examination of the water herein referred to, and the results obtained by analysis, I am of opinion that it should be regarded with great suspicion for drinking purposes.

The abundant evidence of the presence of nitrites and the quantity of oxygen absorbed, in addition to the marked and constant turbidity of the water, point strongly to contamination of the water, either at the source or in transmission.

The analysis is more unfavourable even than that of Bloemfontein spring, of which I had the honour to forward you a copy on 24th April.—I am, yours faithfully,

HOWARD H. TOOTH, M.A., M.D., F.R.C.P.

EXAMINATION OF A SAMPLE OF DRINKING WATER.

From Bloemfontein Main, 4th June 1900.

Source and Possibility of Contamination.—The water may still be somewhat contaminated by the stagnant water of the mains.

Chemical and Physical Examination.

- | | |
|---|---|
| 1. Colour in 6-in. column. | Very slight tinge of yellow. |
| Turbidity. | Very slight. None on boiling. |
| 2. Odour. | None. |
| 3. Residue left on evaporation. | Very little, white, no charring on further heating. |
| 4. Free ammonia. | None. |
| 5. Chlorine. | Two grains per gallon. |
| Equivalent of common salt. | About three grains per gallon. |
| 6. Nitrites. | A doubtful trace, but iron is present. |
| 7. Nitrates. | None. |
| 8. Hardness. | About 9°. |
| 9. Lead. | None. |
| 10. Zinc, iron, and copper. | A trace of iron. |
| 11. Oxygen absorbed in 15 min. at 212° F. | About '4 grain per gallon, with much brown turbidity. |

Portland Hospital, Bloemfontein, 4th June 1900.

The P.M.O., Bloemfontein.

SIR,—From the examination of the water herein referred to, and the results obtained by analysis, I am of opinion that it contains a distinct trace of iron, and this circumstance may partially account for the unsatisfactory result noted in par. 11 of the analysis. The decoloration of the permanganate of potash, and its subsequent brown turbidity, suggests contamination. It is possible that the stagnant water in the mains, of the last month or two, has not yet been completely flushed out.

It is advisable to analyse a sample of water fresh from the reservoir as a control.—I am, yours faithfully,

HOWARD H. TOOTH, M.A., M.D., F.R.C.P.

EXAMINATION OF A SAMPLE OF DRINKING WATER.

From Bloemfontein Waterworks Reservoir, 13th June 1900.

Source and Possibility of Contamination.—The possibility of contamination by sewage at the source or above it should be ascertained; also whether any peaty streams flow into the river above.

Chemical and Physical Examination.

- | | |
|---|--|
| 1. Colour in 6-in. column. | Very faint tinge of yellow. |
| Turbidity. | None. |
| 2. Odour. | None. |
| 3. Residue left on evaporation. | White, insoluble in water. Very little of it. Does not char. |
| 4. Free ammonia. | None. |
| 5. Chlorine. | About 2 grains to the gallon. |
| Equivalent of common salt. | About 3 grains to the gallon. |
| 6. Nitrites. | None. |
| 7. Nitrates. | None. |
| 8. Hardness. | Somewhat over 4°. |
| 9. Lead. | None. |
| 10. Zinc, iron, and copper. | ? A trace of zinc. A trace of iron. |
| 11. Oxygen absorbed in 15 min. at 212° F. | About '4 grain to the gallon, possibly more; reaction obscured by brown turbidity. |

Portland Hospital, Bloemfontein, 13th June 1900.

To P.M.O., Bloemfontein.

From the examination of the water herein referred to, and the results obtained by analysis, I am of opinion that it is of a purer quality than the sample from the main, but there is still a large amount of absorbed oxygen (*v.* test 11).

If the possibility of contamination by sewage or animal matter at the source can be eliminated, this reaction may be attributed to vegetable matter, but under any circumstances the water should be regarded with some suspicion for drinking purposes, and boiling and filtering is advisable.

HOWARD H. TOOTH, M.D., M.A. Cantab, F.R.C.P.

APPENDIX H.

EQUIPMENT.

Marquees, Tents, etc.

14 Tortoise Tents.	2 Latrine Tents.
16 Square Bell Tents.	1 Cooks' Shelter.

More tents were obtained in Africa when the Hospital was enlarged.

Beds and Bedding.

150 2' 6" X 6' 2" Hospital Beds, double-weave wire.	130 Pairs Brown Blankets.
150 2' 6" X 6' 2" Hair Mattresses.	200 Pairs Sheets.
150 27" X 18" Feather Pillows.	300 Pillow Cases.
100 Pairs Scarlet Blankets.	200 Brown Army Blankets.

These were subsequently augmented by the purchase in Cape Town of additional blankets, sheets, and pillows.

Ambulance Waggon, etc.

10 Ambulance Waggon complete, with cover inside.	1 Tin Grease.
2 Stretchers, with cross irons.	5 lbs. Tarred Spun Yarn.
2 Stretcher Carriers.	1 Hind Wheel.
2 Water Cans, with straps.	1 Fore Wheel.
8 Staples for ditto.	1 Tin Axle Grease.
1 Bore Tools.	4 Stretcher Irons.

Tools.

3 Shovels.	2 Small Screw Drivers.
3 Spades.	1 Hand Saw.
3 Hand Axes.	1 Tenon Saw.
1 Cold Chisel.	2 Butcher's Knives.
3 Screw Drivers.	2 Mallets (Beech)
1 Claw Hammer.	1 Jack Plane.
1 Notched Screw Driver.	2 Gross assorted Screws.

Stationery.

1 Cloth Blotter.	3 Hollow Inkstands.
4 School Slates.	6 MSS. Books.

Games.

3 Backgammon Boards.	5 Sets Dominoes.
3 Sets Men.	18 Dice.
5 Dice Boxes.	

Flags, Ground Sheets, and Sundries.

100 Yards Mosquito Netting.	6 Bunting Flags.
2 Fly Switches.	1 Union Jack.
1 Ground Sheet.	14 Tent Pole Straps.
5 Potato Nets.	12 Tan Sheets.
30 Waterproof Sheets.	5 Black Waterproof Sheets.
3 Flag Staffs.	36 Deck Chairs.

Books.

A small library of books for officers and men was kindly provided by Lady Henry Bentinck.

APPENDIX J.

EQUIPMENT OF A TORTOISE TENT WARD.

To be kept complete from stock.

1 Tortoise Tent, 20 ft. × 24 ft.	2 Candlesticks.
8 Beds and Mattresses.	1 Camp Stool.
16 Pillows (1 hard, 1 soft).	3 Chairs.
1 Table, 6 ft. × 3 ft.	1 Broom.
2 Cupboards (Packing-Cases).	1 Scrubbing Brush.
4 to 8 Bedside Tables.	1 Bucket.
2 Strips Coir Matting (officers' ward).	1 Slop Pail.
8 Strips Japanese Matting (officers' ward).	1 Large Pail (to each section).
8 Chart and Diet Boards.	2 Bed Pans.
8 Knives, Forks, Spoons (large and small).	4 Urinals and 4 Chambers.
8 Plates, enamel ware.	4 Spittoons.
8 Bowls, enamel ware.	4 Spit Cups.
8 Mugs, enamel ware.	1 Commode (basket army pattern).
8 Butter Dishes, enamel ware.	3 Bowls, for dressings.
8 Egg Cups, enamel ware.	3 Medicine Glasses.
4 Feeding Cups.	1 Wine-glass Measure, $\frac{5}{8}$ iv.
1 set Salt, Pepper, and Mustard Pots.	2 Thermometers.
1 Tea Urn.	4 Wash-hand Basins, enamel.
2 Milk Cans, with lid.	4 Wash-hand Jugs, enamel.
1 Water Can.	1 Corkscrew.
4 Hair Brushes and Combs.	1 Tin Opener.
4 Shaving Brushes and Bowls.	2 Bed Tables.
2 Looking-glasses.	8 Reading Candles (officers')
2 Soap Dishes.	Crockery and Glass, if available (officers' mess).
1 Set of Diet Tin Trays, army pattern.	2 Foot Baths.
4 Trays.	2 Hip Baths.
2 Stores Baskets.	1 Knife Board.
1 Oil Lamp.	1 Pair Scissors.
1 Candle Lamp.	1 Notice Board.
1 Night Light.	Allow 2½ Sheets and 4 Blankets to each Bed ; keep stock in Hospital Linen Store.

APPENDIX K.

KITCHEN EQUIPMENT.

3 Congo Stoves, and Nest of Pots, 10.	1 Scale (spring).
4 Cooking Ranges — 2 Bolinger Swedish, 2 English.	3 Ladles, pint.
2 Hot-water Boilers.	4 Long Spoons.
2 Hot-water Boilers, 6-gallon.	2 Measures—1 gallon, $\frac{1}{2}$ gallon.
2 Hot-water Boilers, 4-gallon.	2 Colanders.
1 Steam Boiler, 60-gallon.	1 Fine Hair Sieve.
3 Stewpans, round.	2 Strainers.
1 Stewpan, nest of 10, steel.	2 Toasting Forks.
4 Stewpans, miscellaneous.	1 Rolling Pin.
2 Stock Pots.	2 Cutting Boards.
1 Saucepan, iron.	1 Egg Whisk.
3 Kitchen Pans, iron.	1 Flour Dredger.
4 Omelette Pans, enamel.	1 Pepper Box.
8 Camp Kettles.	1 Lamp (50 candle power).
1 Grill (iron).	2 Coffee Pots.
1 Steak Tongs.	1 Salt Box.
15 Dripping Tins.	20 Pudding Shapes.
12 Pudding Dishes.	1 Nutmeg Grater.
2 Meat Saws.	2 Wire Dish-Covers.
2 Meat Miners, large.	2 Jelly Bowls.
1 Cleaver.	2 Fish Slicers.
1 Chopper.	1 Washing-up Bowl.
6 Knives (kitchen).	4 Hand Basins, enamel.
2 Forks (kitchen).	1 Kitchen Basin.
2 Flesh Forks.	2 Cupboards (from Packing-cases).
2 Balances (spring).	1 Bath, for washing up.

APPENDIX L.

MESS STORES AND MEDICAL COMFORTS.

(18 pairs)= 36 cases.

- 2 1-lb. tins Pressed Beef.
- 2 1-lb. tins Spiced Beef.
- 2 tins S. & K. Puddings.
- 2 tins Ox Tongues.
- 4 tins O. M. Sausages.
- 1 $\frac{1}{2}$ -tin Arrowroot, Bermuda.
- 1 $\frac{1}{4}$ -tin Baking Powder.
- 2 tins Beef Essence, 3 oz.
- 3 tins Beef Extract, 2 oz.
- 2 tins Meat Lozenges.
- 1 tin Albert Biscuits, 2 lbs.
- 1 tin Oaten Biscuits, 2 lbs.
- 6 $\frac{1}{2}$ -lb. tins Butter.
- 2 lbs. P. S. Candles, 12s.
- 3 tins Chocolate Food.
- 1 bottle Chutney.
- 2 $\frac{1}{2}$ -lb. tins Cocoa Essence.
- 2 tins Cocoa and Milk, $\frac{1}{4}$ -lb.
- 2 bottles Coffee Essence.
- 1 $\frac{1}{4}$ -lb. tin Curry Powder.
- 6 $\frac{1}{4}$ -lb. tins Sardines.
- 1 tin Dubbin.
- 1 1-lb. tin French Plums.
- 1 1-lb. tin Figs.
- 1 tin Apricots in Syrup.
- 1 tin Peaches in Syrup.
- 16 $\frac{1}{4}$ -lb. tins Jams.
- 12 $\frac{1}{4}$ -lb. tins Marmalade.
- 2 $\frac{1}{2}$ bottles Lime Juice.
- 4 tins Ideal Milk.
- 4 1-oz. tins Mustard.

- 1 tin Quaker Oats.
- 3 White Pepperettes.
- 3 tins Plum Pudding.
- 1 $\frac{1}{2}$ bottle Pickles.
- 6 tins assorted Potted Meats.
- 2 2-lb. tins Patna Rice.
- 2 $\frac{1}{2}$ -lb. tins Salt.
- 2 $\frac{1}{4}$ bottles Worcester Sauce.
- 1 tablet Carbolic Soap.
- 1 bar Sunlight Soap.
- 2 tins (6 each) Soup Squares.
- 3 tins Maggis Consomme.
- 3 $\frac{1}{2}$ -lb. tins Tea.
- 3 lbs. Mixed Vegetables.
- 2 tins Haricot Vert.
- 2 tins Petit Pois.
- 2 Tin Openers.

(Repeat 18 times.)

- 36 tins Bacon (64 $\frac{1}{2}$ lb.)
- 24 1-lb. tins M. and M. Coffee.
- 24 tins Brand's Nutrient Powder.
- 48 tins Bloaters.
- 48 tins Kipperred Herrings.
- 48 tins Findon Haddocks.
- 48 tins Sardines.
- 1 case (2 doz.) Bartlett Pears.
- 48 tins Chicken Broth, 1 lb.
- 48 tins Ox-Tail Soup, thick, 1 lb.
- 48 tins M. Turtle Soup, clear,
1 lb.
- 48 tins Mutton Broth, 1 lb.

MESS STORES AND MEDICAL COMFORTS—*Continued.*

48 bottles Apples.	5 cases "Sledge" Cond. Milk, unsweetened, 48s.
48 bottles Raspberries.	1 case Devon Butter, 48 lbs.
48 bottles Red Currants.	1 case (2 doz.) Assorted Soups.
9 cases (each 48 tins) Dahl's Milk.	1 case (2 doz.) Chicken Broth.
16 tins Dahl's Milk.	1 case (2 doz.) Pressed Beef.
100 1-lb. Devon Butter.	1 case (4 doz.) Pressed Beef.
16 2-lb. tins Soups.	1 case (4 doz.) "Signal" Camp Rations.
16 1-lb. tins Chicken Broth.	1 case (4 doz.) "Ship" Ox Tongues.
2 $\frac{1}{2}$ -gross boxes Sunlight Soap.	3 cases (6 doz.) Oxford Sausages.
6 doz. tablets Pears' Soap.	1 case (50 lbs.) Butter.
28 1-lb. tins Bermuda Arrowroot.	1 case (4 doz.) Cocoa and Milk.
30 1-lb. boxes F Patent Sperm Candles.	1 case (8 $\frac{1}{2}$ doz.) A. G. Sardines.
100 boxes C. P. N. Lights.	1 case (2 doz.) "Ship" Apricots.
2 cwt. Yellow Soap.	1 case (2 doz.) "Ship" Peaches.
3 Tin Openers.	1 case (8 $\frac{1}{2}$ doz.) Macedoines.
16 7-lb. tins Best Soft Soap.	1 case 50 tins Extra Fine Haricots Verts ;
3 gross B. & M. Safety Matches.	50 tins Fine Petit Pois.
1 case (2 doz.) Portuguese Figs.	3 cases (6 doz.) Sliced Bacon.
3 cases (4 doz.) bottles Rasp- berries ;	1 case (4 doz.) "Sledge" Cream.
(4 doz.) bottles Red Currants ;	3 boxes (3 doz.) A. G. Ancho- vies in Oil.
(7 doz.) Pepperettes.	1 case (8 $\frac{1}{2}$ doz.) A. G. Royans aux Achards.
1 case (28 lbs.) Ground Coffee, in 7-lb. tins, half Mocha, half Mysore.	1 case (8 $\frac{1}{2}$ doz.) "Signal" Nor- wegian Sardines.
28 lbs. Pure Ground Mocha in 7-lb. tins.	1 case (8 $\frac{1}{2}$ doz.) A. G. Sardines in Lemon.
6 cases "Bear" Cond. Milk, 48 tins.	1 case (4 doz.) "Ship" Flat Lobsters.
1 case (2 doz.) "Ship" Bart. Pears.	1 case (2 doz.) Johnson's Guavas.
2 cases (4 doz.) Kidney Soup.	1 case (2 doz.) A. G. Olives, pints.
2 cases (4 doz.) Ox-Tail Soup, thick.	1 case (2 doz.) A. G. Olive Farcies.
2 cases (4 doz.) Mock Turtle Clear Soup.	1 case (2 doz.) Pulvis Nutrient Powder.
2 cases (4 doz.) Kidney Soup.	
2 cases (4 doz.) "Tom Tit" Apples.	

MESS STORES AND MEDICAL COMFORTS—*Continued.*

- 2 cases (each 1 cwt.) Yellow Soap.
- 3 Iron-handed Tin Openers.
- 1 case 16 7-lb. tins Best Soft Soap.
- 2 cases (each $\frac{1}{2}$ gross) Sunlight Soap.
- 1 case (6 doz.) tablets Pears' Soap.
- 1 case F. Patent Sperm Candles.
- 1 case 100 boxes Clark's Patent Night Lights.
- 1 case (36 tins) Brand's Beef Essence ;
- 54 2-oz. pots "Ship" Extract of Meat.
- 36 boxes Brand's Meat Lozenges.
- 1 case 18 2-lb. tins Albert Biscuits.
- 1 case 18 2-lb. tins Oaten Biscuits.
- 1 case 36 lbs. Price's Sperm Candles.
- 1 case 54 tins Chocolate Food ;
- 18 bottles Chutney ;
- 36 tins Cadbury's Cocoa Essence.
- 1 case 36 bottles Reveille Coffee Essence ;
- 18 tins Dale's Dubbin.
- 4 cases Jam, each 6 doz. 1-lb tins.
- 1 case (6 doz.) Marmalade.
- 3 cases (3 doz.) "Ship" Lime Juice.
- 1 case 6 lbs. Mustard ;
- 18 pint bottles Thega Pickles.
- 1 case 36 2-lb. Quaker Oats.
- 1 case 54 1-lb. tins Plum Puddings.
- 1 case (9 doz.) "Ship" Potted Meats.
- 1 case 48 6d. tins Cerebos Salt ;
- 36 $\frac{1}{2}$ -pt.bots.Worcester Sauce.
- 1 case (56 lbs.) Carbolie Soap.
- 1 case $\frac{1}{4}$ gross Sunlight ; 36 tins Soup Squares ; 54 tins Maggis Consommie ; $\frac{1}{2}$ doz. Iron-handed Tin Openers.
- 1 case 28 1-lb. tins Bermuda Kind Arrowroot.
- 1 case 18 1-lb. tins Bermuda Kind Arrowroot ;
- 18 $\frac{1}{4}$ -lb. tins "Ship" Baking Powder ;
- 18 $\frac{1}{4}$ -lb. tins Curry Powder ;
- 36 2-lb. tins Patna Rice.
- 2 boxes, each 28, 1s Perfection Macaroni ;
- 2 boxes, each 28, 1-lbs Perfection Vermacelli.
- 1 case 28 2-lb jars A. G. French Plums.
- 1 case 54 $\frac{1}{2}$ -lb. tins Tea.
- 1 case (24 lbs.) best Ground Coffee.
- 1 case, tin-lined, 3600 Cigarettes
- 1 case 20 lbs. Capstan Navy Cut, $\frac{1}{4}$ -lb. tins, Mild.
- 13 cases Vanguard Scotch Whisky.
- 3 cases (3 doz.) "1869" Brandy.
- 2 cases (4 doz.) Champagne, Special L'Daloux.
- 3600 Cigarettes, Egypt.
- 13 $\frac{1}{2}$ -lbs Capstan Navy Cut ($\frac{1}{4}$ -lb tins).
- 13 doz. Whisky.
- 3 doz. Cognac.
- 4 $\frac{1}{2}$ -bots. Moet's Special Cuvee de Reserve.
- Egg Powders.
- Meat Essences.

APPENDIX M.

DATES AND RESULTS.

Portland Hospital personnel embarked in the transport *Majestic* at Liverpool, 13th December 1899.

Portland Hospital personnel arrived at Cape Town, 28th December 1900.

Stores disembarked from ss. *Victorian*, 2nd and 3rd January 1900.

Hospital opened and received first convoy at Rondebosch, 8th January 1900.

Portland Hospital handed over patients on 6th April, and entrained for Bloemfontein on 8th April, arriving on 14th April 1900, and received first patients on 17th April 1900 (a total of 11 days).

Portland Hospital handed over patients on 21st July at Bloemfontein. Sailed for England in transport *Canada* on 1st August. Arrived in England on August 18th, 1900 (28 days after handing over patients).

Net result.—183 working days out of a total period of mobilisation of 248 days, 65 being spent in travelling.

1009 cases treated at a net cost of about £10 per head.

APPENDIX N.

TO CALCULATE SICK AND WOUNDED.

Sick equals double peace rates, *i.e.*, 10 per cent.

Wounded equals 6 per cent. $\left. \begin{array}{l} \frac{1}{3} \text{ severe.} \\ \frac{2}{3} \text{ slight.} \end{array} \right\}$

$\frac{1}{3}$ of sick and wounded are in Field Hospitals.

$\frac{2}{3}$ of sick and wounded are in General Hospitals.

Thus for 100,000 men in the field—

Number of sick	.	.	.	10,000
Wounded	.	.	.	5,000

Total, 15,000

Of these, 5000 are in Field, and 10,000 in General Hospitals.

APPENDIX O.

MEDICAL OFFICERS' KITS (RECOMMENDED).

1 Waterproof Coat.	3 Sets Bootlaces and Dubbin.
1 Great Coat, or ("Coat warm British Officers").	1 Haversack.
2 Serge Khaki Suits.	1 Water-bottle, vulcanite.
1 Drill Khaki Suit.	1 Pasteur Filter (cork to fit bottle).
1 Riding Breeches.	1 Holdall (razor, tooth-brush, etc.).
1 Gaiters.	1 Valise (Wolseley).
1 Helmet, Egyptian pattern.	3 Blankets.
1 Field-service Cap.	1 Waterproof Sheet.
2 Pairs Boots, brown, walking.	1 Folding Bath.
1 Pair Shoes, brown, walking.	1 Basin, with leather cover to hold washing kit.
3 Shirts, flannel.	1 X bed.
3 Drawers, cotton or silk.	3 Canvas Buckets.
2 Drawers, warm.	Canteen for 3 or 2.
4 Vests, cool.	Pocket-case Surgical Instru- ments.
2 Vests, warm.	Hypodermic Syringe and Mor- phia tabloids.
12 Pairs Socks, medium.	
1 Jersey.	
12 Handkerchiefs.	
2 Pair Braces.	

APPENDIX P.

TRANSPORT (RECOMMENDED).

Transport sufficient for Local Purposes.

2 Ambulances, capable of carrying 4 lying-down cases each.	Extra mules available by requisition for occasional use.
1 Watercart.	Jack for raising wheels.
1 Trap.	Tools for repairing.
5 Riding Horses and Saddlery.	Grease and Spun Yarn.
8 Mules and Harness.	

APPENDIX Q.

SICK STATISTICS—PORTLAND HOSPITAL.

Admissions, Discharges, Transfers, and Deaths, from 8th January to 21st July 1900.

ADMISSIONS.	DISCHARGES.				Deaths.	Transfers to Base or other Hospitals.
	Duty.	Garrison Duty.	England.	Convalescent.		
Officers . 119	50	2	7	7	2	51
N.C.O.'s & } 890 Men . }	103	4	91	296	35	361
Totals . 1009	153	6	98	303	37	412

Officers and Men treated in the Portland Hospital on board ss. "Canada," Capetown to England, 1st August to 18th May.

	Transferred to Netley.	Transferred to Alder-shot and other Hospitals.	Sick Furlough.
Officers . . . . .	...	...	11
Men	15	25	31
Totals	15	25	42

Officers . 11
Men . 71
82

C. R. KILKELLY,
Surgeon-Colonel, Grenadier Guards.

PORTLAND HOSPITAL

Abstract of Admissions, Discharges, and Transfers at Rondebosch, from 8th January to 5th April 1900.

ADMISSIONS.	DISCHARGES.				Deaths.	Transferred to other Hospitals
	Duty.	Garrison Duty.	England.	Convalescent.		
Officers	30	1	7	4	1	12
N.C.O.'s and Men	21	4	91	251	3	52
Totals	51	5	98	255	4	64

BLOEMFONTEIN,
27th April 1900.

APPENDIX R.

LIST OF DRUGS.

These drugs, alphabetically grouped, were packed in cases 1 to 18, each case in duplicate. The equipment, therefore, comprised double the quantities mentioned below.

$\frac{1}{4}$ lb. Acid. Sulph. Pur.	1 yd. Emp. Saponis.
1 lb. Acid. Citric.	2 lb. Ext. Belœ Liq.
$\frac{1}{4}$ lb. Acid. Gallic.	4 oz. Ext. Belladon. Virid.
1 oz. Acid. Hydrocyan. Dil.	$\frac{1}{2}$ lb. Ext. Cascaræ Liq.
$\frac{1}{4}$ lb. Acid. Phosphoric. Dil.	1 yd. Emp. Belladon.
$\frac{1}{2}$ lb. Acid. Tannic.	1 lb. Ext. Pareiræ Liq.
2 lb. Acid. Tart. Pulv.	1 doz. 5 gr. Tubes Eserine.
1 lb. Ammon. Bromid.	1 lb. Ferri et Quin. Cit.
2 lb. Ammon. Carb., Opt.	$\frac{1}{2}$ lb. Ferri et Ammon. Cit.
1 lb. Acetanilid.	1 lb. Ferri Carb. Sacch.
1 oz. Antim. Tart.	4 lb. Glycerine.
2 lb. Adeps. Lanæ. Hydrosus.	1 doz. 5 gr. Tubes Homatropine.
4 oz. Argent. Nit.	8 oz. Hydrarg. Perchlor. Pulv.
2 lb. Aqua Dest.	1 lb. Hydrarg. Subchlor. Pulv.
3 lb. Alum Pulv.	$\frac{1}{2}$ lb. Inf. Buchu Conc. (1-7).
$\frac{1}{2}$ lb. Ammon. Chlor. Pur. Pulv.	4 oz. Inj. Morph. Hypoderm.
$\frac{1}{2}$ lb. Alcohol Absolute.	2 lb. 8 oz. Iodoform.
1 lb. Acid. Hydrobrom. Dil.	1 lb. Ipecac. Pulv.
1 lb. Acid. Hydrochlor. Dil.	1 lb. Inf. Gent. Co. Conc.
1 lb. Bismuth. Carb.	$\frac{1}{2}$ lb. Inf. Cocain Hydroch.
1 lb. Boracis. Pulv.	4 oz. Liq. Epispasticus.
4 oz. Butyl Chloral Hydrate.	$\frac{1}{2}$ lb. Liq. Iodi. Fort.
4 oz. Beta Naphthol.	$\frac{1}{2}$ lb. Lin. Aconit. Meth.
$\frac{1}{2}$ lb. Collodion.	$\frac{1}{2}$ lb. Lin. Belladon. Meth.
1 lb. Camphora.	3 lb. Lin. Camph. Co.
2 oz. Cera Alb. Pur., Cake.	2 lb. Lin. Saponis. Meth.
1 lb. Chloral Hydras.	2 lb. Liq. Ammon. Fort.
5 lb. Chloroform.	2 lb. Liq. Ammon. Acet. Fort.
4 oz. Cocain Hydrochlor.	$\frac{1}{2}$ lb. Liq. Arsenicalis.
4 oz. Creasote.	$\frac{1}{2}$ lb. Liq. Arsen. et Hyd. Iodid.
1 lb. Cupri. Sulph. Pur.	2 lb. Liq. Ferri Perch. Fort.
$\frac{1}{2}$ gross Caps. Amyl. Nit.	$\frac{1}{2}$ lb. Liq. Opii Sed.
2 oz. Caffein Cit.	1 lb. Liq. Plumbi. Subacet.
$\frac{1}{4}$ lb. Ext. Cinchon. Liq.	1 lb. Liq. Potassæ.
4 oz. Ext. Ergotæ Liq.	$\frac{1}{2}$ lb. Liq. Picis. Carb.
4 oz. Ext. Filicis Liq.	2 lb. Liq. Quassia Conc. (1-9).
1 yd. Emp. Canthar.	$\frac{1}{2}$ lb. Liq. Strychninæ Hydroch.

LIST OF DRUGS—*Continued*

$\frac{1}{2}$ lb. Liq. Calumbæ Conc. (1-9).	40 oz. Quininæ Sulph., Compressed.
4 oz. Liq. Arsenic. Hydroch.	40 oz. Quininæ Sulph., 2 gr. Tabs.
$\frac{1}{2}$ lb. Liq. Senegæ Conc. (1-9)	1 lb. Spts. Ætheris.
2 lb. Lin. Pot. Iodid. c. Sapon.	2 lb. Spts. Ætheris Nit.
5 lb. Magnes. Sulph. Opt.	1 oz. Santonine.
$\frac{1}{2}$ oz. Morphinæ Hydrochlor.	3 lb. Sinapis Pulv.
2 lb. Mist. Senna Co. Conc.	3 Boxes Sinapis Charta Rigollots.
2 lb. Ol. Terebinth.	4 lb. Sodii Bicarb.
$\frac{1}{2}$ lb. Ol. Copaibæ.	2 lb. Sodii Salicylas.
1 oz. Ol. Crotonis.	4 lb. Spts. Ammon. Arom.
2 oz. Ol. Menth. Pip.	4 lb. Spts. Chloroform.
4 lb. Ol. Olivæ.	4 pts. Spts. Vini. Meth.
4 lb. Ol. Ricini.	3 lb. Sanitas.
2 oz. Opîi. Pulv.	4 pts. Spts. Vini. Rect.
2 lb. P. Rhei Co.	2 lb. Syr. Scillæ.
5 gross Pil. Hyd. c. Creta, gr. 2.	1 gross Suppos. Bella., P. B. gr. $1\frac{1}{2}$.
2 lb. Paraffin Molle.	1 gross Suppos. Morph., P. B. gr. $\frac{1}{2}$.
3 x 2 lb. Paraffin. Molle Boric (1-6).	600 Tabs. Tabellæ Atropin. Sulph.,
1 lb. Paraffin. Molle c. Hyd. Ox.	gr. $\frac{1}{100}$.
Rub. (4 gr. to oz.).	500 Tabs. Morphinæ Tart., gr. $\frac{1}{8}$.
$\frac{1}{2}$ lb. Phenacetine.	500 Tabs. Morphinæ Tart., gr. $\frac{1}{4}$.
5 gross Pil. Hydrarg., gr. 5.	$\frac{1}{2}$ lb. Tabs. Sulphonal., gr. 5.
5 gross Pil. Rhei Co., gr. 5.	4 oz. Tinct. Aconit.
2 gross Pil. Ipecac. c. Scilla., gr. 5.	4 oz. Tinct. Arnica.
$\frac{1}{4}$ lb. Pot. Caustica.	2 lb. Tinct. Aurant.
16 oz. Phenazone.	$\frac{1}{2}$ lb. Tinct. Belladon.
1 lb. Pot. Bromid.	$\frac{1}{2}$ lb. Tinct. Benzoin. Co.
2 lb. Pot. Chlor.	2 lb. Tinct. Camph. Co.
2 lb. Pot. Iodid.	4 oz. Tinct. Capsici.
2 lb. Pot. Nit. Pulv.	1 lb. Tinct. Cardam. Co.
$\frac{1}{2}$ lb. Pot. Tart. Acida.	1 lb. Tinct. Catechu.
5 lb. Pot. Permang.	1 lb. Tinct. Chlorof. et Morph.
1 lb. P. Cretæ Arom.	2 lb. Tinct. Cinchon. Co.
2 lb. P. Cretæ Arom. c. Opio.	$\frac{1}{2}$ lb. Tinct. Colchici Sem.
1 lb. P. Ipecac. Co.	1 lb. Tinct. Digitalis.
1 lb. P. Jalapæ Co.	1 lb. Tinct. Hyoscyam.
1 Stopper Loosener Pannier.	1 lb. Tinct. Iodi.
1 Copy P. B., 1898.	$\frac{1}{2}$ lb. Tinct. Myrrhæ.
1 Copy Martindale.	1 lb. Tinct. Nuc. Vom.
$1\frac{1}{2}$ doz. Gallipot's Nested Pannier.	4 lb. Tinct. Opîi.
2 gross Pil. Scammon. Co.	1 lb. Tinct. Rhei, P. B.
5 gross Pil. Plumbi c. Opio.	1 lb. Tinct. Scillæ.

LIST OF DRUGS—*Continued*

$\frac{1}{2}$ lb. Tabellæ Trinitrinæ.	3 papers Boxes, Pill Chip.
$\frac{1}{2}$ lb. Tabellæ Salol., gr 5.	2 papers Boxes, Pill Paper
4 oz. Tinct. Cannab. Ind.	2 gross Corks, vial.
$\frac{1}{2}$ lb. Tinct. Hamamelidis.	2 gross Corks, $\frac{1}{2}$ pint.
1 lb. Ung. Sulphur. Co.	1 gross Corks, pint.
1 lb. Ung. Zinci.	1 gross Corks, quart.
1 lb. Ung. Hydrarg.	$\frac{1}{4}$ quire Filtering Paper.
$\frac{1}{2}$ lb. Ung. Hydrarg. Nit. Dil.	500 Labels, Blank.
$\frac{1}{2}$ lb. Ung. Hydrarg. Ox. Flav.	200 Labels, "External Use."
1 lb. Ung. Resinæ.	300 Labels, "Poison."
2 lb. Ung. Acid. Boric.	200 Labels, "Shake the Bottle."
2 lb. Ung. Paraffin. Flav.	300 Labels, Ward.
2 lb. Ung. Hydrarg. Ammon.	2 yds. Straining Cloth
1 lb. Ung. Hydrarg. Comp.	2 oz. Packthread.
$\frac{1}{2}$ lb. Ung. Hydrarg. Oleat.	2 Measures, grad. minim.
2 lb. Vin. Antim.	2 Measures, grad. 2 oz.
2 lb. Vin. Ipecac.	3 Measures, grad. 4 oz.
8 oz. Zinci Chlor. Sticks.	1 Measure, grad. $\frac{1}{2}$ pint.
1 lb. Zinci Oxid.	1 Measure, grad. pint.
1 lb. Zinci Sulph. Pur.	2 Evaporating Basins.
$\frac{1}{2}$ lb. Zinci Sulpho-Carb.	1 Funnel, Compo.
1 doz. Bottles, 4 oz.	2 Funnels, Glass.
2 doz. Bottles, 6 oz.	2 Funnels, Tin.
$1\frac{1}{2}$ doz. Bottles, 8 oz.	1 Pestles and Mortars, Compo., sm.
$\frac{1}{2}$ doz. Bottles, 12 oz.	1 Pestles and Mortars, Compo., medium.
1 doz. Bottles, 1 oz. Fluted Poison.	1 Pestles and Mortars, Glass.
1 doz. Bottles, 2 oz. Fluted Poison.	$2\frac{1}{2}$ gross Pil. Coloc. et Hyoscyam.
1 doz. Bottles, 4 oz. Fluted Poison.	2 lb. Acaciæ Pulv.
1 doz. Bottles, 6 oz. Fluted Poison.	8 lb. Acid. Boric. Pulv.
$\frac{1}{2}$ doz. Bottles, $\frac{1}{2}$ oz. Vial.	2 lb. Acid. Carbolic. Xts.
1 doz. Bottles, 1 oz. Vial.	10 lb. Acid. Carbolic. Liq.
1 doz. Bottles, 2 oz. Vial.	4 oz. Acid. Acetic. Glac.
1 × Bolus Tile, large.	5 lb. Æther, .720.
1 × Bolus Tile, small.	

LIST OF APPLIANCES

500 Loose Wove Bandages, Sal Alem.	5 C.H. Pencils, bent.
2 Doz. Suspensory Bandages.	15 C.H. Pencils, straight.
2 Doz. Triangular Bandages, Sal Alem.	20 yds. Thin Calico.
2 Bandage Rollers.	25 yds. Christia Tissue.
	12 Tubes, Drainage - Tubing in Aseptic Solution.

LIST OF APPLIANCES—*Continued*

- | | |
|---|---|
| 250 Bandages, Gauze, Dble. Cyanide. | 6 Cradles, Fracture, Iron Portable. |
| 40 lb. Cotton Wool Absorbent. | 24 Catheters, Olivary. |
| 12 lb. Cotton Wool Double Cyanide, in 2 oz. packets. | 24 Catheters, E.G. |
| 6 lb. Cotton Wool, Alembroth, in 4 oz. packets. | 12 Bougies, Olivary. |
| 14 Single Eye-shades. | 2 Bags, Ice, Spine. |
| 6 Eye-shades, Double. | 2 Hones, Turkey. |
| 6 Vulcanite Idioform Dredgers. | 2 Hones, Arkansas Slip. |
| 2 Gutta-percha Idioform Dredgers. | 2 Sets of Irrigators, 2 in a set. |
| 25 yds. Jaconet Waterproof. | 6 Glass Rods. |
| 2 Leather Skins. | 4 Slings, Arm, Wire. |
| 6 Packets Common Pins. | 2 Screwdrivers. |
| 40 Boxes Safety Pins. | 2 Scissors, Counter. |
| 30 Boxes Fine Lint. | 1 Set Scales & Weights, Brass Pan. |
| 12 yds. Poultice Cloth. | 1 Set Scales & Weights, Glass Pan. |
| 6 yds. Sheetting, Bleached Linen. | 2 Sets Pillar Scales. |
| 12 Old Linen Sheets. | 1 Set Ounce Scales. |
| 25 Tubes, Silk, twisted five inch, in Aseptic Solution. | 2 Spatulas, Bone. |
| 6 Reels Ligature Silk. | 2 Spatulas, Spreading. |
| 2 Syringes, Male, Pewter. | 12 yds. Tubing, Drainage. |
| 24 Syringes, Male, Glass. | 2 Machines, Pill. |
| 6 Pieces Broad Tape. | 2 Tapes, Measuring, Chesterman's Spring. |
| 6 Pieces Narrow Tape. | 6 Sets Common Splints. |
| 100 Pieces for Field Equipment. | 4 Salter's Cradles. |
| 8 oz. Thread for Ligatures. | 2 Straps. |
| 6 Books Test Papers. | 1 Apparatus Urinometer, Small. |
| 6 Sets Test Tubes. | 6 Pillows, Stump Waterproof. |
| 12 yds. Waterproof Cloth. | 12 Glass Ear Syringes. |
| 4 Eye Baths. | 2 Thermometers, Bath. |
| 6 Corkscrews, Folding. | 1 Tourniquet Screw. |
| 2 Caustic Holders. | 1 Apparatus, Enema, Brass. |
| 1 Knife, Bolus, 6-inch. | 1 Set Catheters, Silver and Nickel. |
| 4 Leather Arm Slings. | 2 Aluminium Stethoscopes. |
| 1 Small Air Bellows. | 1 Stomach Pump. |
| 3 Air Pillows, Round. | 24 Thermometers, Clinical in B. C. Cases. |
| 3 Air Pillows, Square. | 2 General Fracture Boxes, complete. |
| 15 lb. Tenax. | 1 Thomas's Hip Splint, adult size. |
| 25 lb. Marine Lint. | 1 Patten for Thomas's Splint. |
| 60 lb. Surgeon's Tow. | 4 Water-Bottles, c. Felt Covers. |
| 2 Air Bed Boxes, complete. | 100 yds. Flannelette. |

LIST OF APPLIANCES—*Continued*

6 Higginson's Enemas, c. Bone Nozzles.	Bandages, Suspensory.
6 Higginson's Enemas, c. Glass Nozzles.	Bandages, Triangular, Salalem-broth.
4 Doz. Spare Glass Nozzles.	Bandages, Rollers for.
16 Lapis Divinus Points.	Camel Hair Pencils, bent.
2 Holders for ditto.	Camel Hair Pencils, straight.
80 lb. Chloroform in Stop. and Cap. Bottles.	Calico, thin.
30 lb. Ether in Stop. and Cap. Bots.	Christia Tissue.
12 Drop Bottles.	Drainage Tubing, in Aseptic Solution.
9 Pairs M'Burney's Gloves.	Bandages, Gauze, Double Cyanide.
3 Trays, Enamelled Iron.	Cotton Wool, Absorbent.
6 Basins, 14-inch.	Cotton Wool, Double Cyanide, 2 oz. packets.
24 Lane's Screws.	Cotton Wool, Salalem., 4 oz. packets.
30 Ivory Pegs for Bone Sutures.	Eye-shades, single.
1 File, 6-inch.	Eye-shades, double.
1 Aseptic Brace, c. 9 Twist Drill.	Dredgers, Iodoform, Vulcanite.
3 Pins, Steel Patella.	Gutta percha, for Splints.
1 Screwdriver, Lane's, all Metal.	Jaconet Waterproof.
4 Sounds, Clutton's, four sizes.	Leather Skins.
3 Bone Drills, N.-P. Metal Handles.	Pins, Common.
1 Combined Sterilizer, Fig. 2628.	Pins, Safety, Boxes of 50.
2 Infusion Canulas, Silver.	Lint, fine.
1 Infusion Canula, Steel.	Poultice Cloth.
100 ft. White Pine for Splints.	Sheeting, Bleached Linen.
100 ft. Iron for Splints.	Sheets, Old Linen.
6 Assorted Glass Funnels.	Silk, Twisted, fine and medium, in Aseptic Solution.
12 lb. Carbolic Acid Cryst., B.P.	Silk Ligature, on Reels.
3 20-oz. Measures, grad. cylin.	Syringes, Male, Pewter.
3 40-oz. Measures, grad. cylin.	Syringes, Male, Glass.
6 2-oz. Measures, grad. cylin.	Tape, broad.
200 Infusion Tabloids.	Tape, narrow.
2 lb. Olive Oil.	Tape, for Field Equipment.
132 yds. Grey Scourer.	Thread, for Ligatures.
1 Berkfeld Filter.	Test Papers.
6 Spare Cylinders for ditto.	Test Tubes.
24 Ligature Holders, Metal, to pat.	Waterproof Cloth.
4 Operating Blouses.	Eye Baths.
2 Antiseptic Cases, complete.	Corkscrews, Folding.
Bandages, Loose Wove, Salalem-broth.	

LIST OF APPLIANCES—*Continued*

Holders, Caustic.	Medical Companion.
Knife, Bolus, 6-inch.	Surgical Haversacks.
Slings, Arm, Leather.	Water Bottles, c. Felt Covers.
Air Bellows, small.	Flannelette.
Air Pillows, round.	Higginson's Enemas, c. Bone
Air Pillows, square.	Nozzles.
Tenax.	Higginson's Enemas, c. Glass
Tow, Surgeon's.	Nozzles.
Air-bed Boxes, complete.	Glass Nozzles, spare.
Cradles, Fracture, Iron portable.	Chloroform, in 2 lb. bottles.
Catheters, Olivary.	Ether, in 1 lb. bottles.
Catheters.	Drop Bottles.
Bougies, Olivary.	M'Burney's Gloves.
Bags, Ice, Spine.	Trays, Enamelled Iron.
Hones, Turkey.	Basins, Enamelled Iron, 14-inch.
Hones, Arkansas Slip.	Lane's Screws.
Irrigators, sets of 2 complete.	Ivory Pegs for Bone Sutures.
Rods, Glass.	File, 6-inch.
Splints, Wire Arm.	Aseptic Brace, N.-P., c. 9 Twist
Screwdrivers.	Drill.
Scales and Weights, Brass Pan.	Pins, Steel Patella.
Scales and Weights, Glass.	Bone Drills, metal handle.
Scales and Weights, Pillar.	Combined Sterilizer.
Scales and Weights, Ounce.	Infusion Canulas, Silver.
Tubing, Drainage.	Wood, White Pine.
Machines, Pill.	Iron, as used in Hip Splints.
Splints, Common.	Funnels, Glass, assorted.
Splints, Salter's Cradles.	Carbolic Acid Cryst., B.P.
Strops.	Measures, graduated cylindrical,
Apparatus, Urinometer, small.	20 oz.
Pillows, Stump, Waterproof.	Do., do., 40 oz.
Glass Ear Syringes.	Do., do., 2 oz.
Thermometers, Bath.	Infusion Tabloids.
Tourniquet, Screw.	Olive Oil.
Apparatus, Enema Brass.	Grey Scourer.
Catheters, Silver and Nickle.	Blouses, Operating.
Stethoscopes, Aluminium.	Scissors, Counter.
Stomach Pump.	Spatulas, Bone.
Thermometers, Clinical, in bayonet	Spatulas, Spreading.
catch cases.	Tapes, Measuring, Chesterman's
General Fracture Boxes.	Spring.
Thomas's Hip Splint, adult size.	Ligature Holders, Metal.

LIST OF APPLIANCES—*Continued*

Pattern for Thomas Splint.	12 Hanks Silver Wire.
Marine Lint.	Wire-cutting Forceps, plated.
3 Amputation Knives, 6-inch.	4 Large Retractors.
3 Amputation Knives, 8-inch.	4 Double Blunt Hooks.
3 Ankle Joint Knives.	2 Liston's Needles.
2 Amputation Saws.	2 Liston's Needles.
2 Amputation Saws, small.	2 Hernia Directors.
1 Amputation Saw, Butcher's.	12 Pairs Dissecting Forceps.
2 Metacarpal Saws.	3 Pairs Dressing Forceps.
48 Wells' Forceps.	2 Pairs Rat-Tooth Forceps.
4 Spring Dressing Forceps.	3 Pairs 5-in. Sharp-pointed Scissors.
1 Small Needle Holder.	3 Pairs 5-in. Blunt-pointed Scissors.
3 Large Needle Holders.	3 Pairs 5-inch Angular Scissors.
2 Bullet Forceps.	3 Pairs Curved Scissors.
2 Gunshot Probes.	2 Scissors, Long-pointed, Straight.
3 Bone Forceps.	1 Set Trephines.
2 Bone Forceps, angular.	6 Volkmann's Spoons.
3 Bone Gouges.	1 Eye Case.
1 Bone Cutting Scissors.	1 Laryngoscope.
3 Bone Chisels.	2 Ward Scissors, 8-inch.
1 Lion Forceps.	2 Ward Scissors, 9-inch.
2 Gouge Forceps.	Clover's Crutch.
4 Necrosis Forceps.	Junker's Inhaler.
6 Tooth Forceps.	Ophthalmoscope.
1 Parrot-bill Forceps.	Nasal Speculum.
6 Bottles Dental Liquid.	2 Ferguson's Gags.
2 Elevators.	4 Tongue Depressors, 2 sizes, large and small.
3 Esmarch's Tourniquets.	2 Vulsellum Forceps.
2 Raspatories.	2 Trachea Tubes.
Brain Searcher.	2 Trachea Dilators in case.
4 Aneurism Needles.	Aspirator.
2 Bistouries.	Exploring Syringe.
2 Bistouries, sharp.	2 Trocars and Canulas.
4 Finger Knives.	3 Hypo. Syringes.
4 Hernia Knives.	2 Clover's Inhalers, with spare bags.
48 Scalpels.	Chloroform Inhaler.
24 doz. Needles.	3 Long Pressure Forceps.
2 doz. Hanks Silk.	6 Sponge-holding Forceps.
1 doz. Hanks Silk.	3 Sponge Holders.
2 doz. Hanks Catgut.	1 Bladder Trocar.
6 doz. S. W. Gut.	1 Case Lister's Bougies.
3 Kangaroo Tendons, in bottle.	

LIST OF APPLIANCES—*Continued*

1 Rectal Speculum.	4 doz. Honeycomb Sponges.
Tongue Forceps.	6 Abd. Sponges.
12 Assorted Probes.	2 doz. Turkey Sponges.
12 Assorted Directors.	2 Bottles Zimocca Sponges.
Blunt Dissector.	36 yds. Carbolized Gauze.
File Forceps.	1000 yds. Cyanide Gauze (6 yds.).
2 Mallets.	500 yds. Plain Gauze.
24 Steel Pins.	48 lb. Gamgee Tissue.
Bradawl.	24 yds. Iodoform Gauze.
Screwdriver.	300 yds. Thymol Gauze.
2 Intestinal Clamps.	30 lb. Lint.
12 Razors.	2 Pieces Sheeting, 9 ft. \times 3 ft. 6 in.
24 Nail Brushes.	4 Pieces Sheeting, 54 in. \times 48 in.
2 Infusion Apparatus.	(5 yds. 1 ft.).
3 Murphy's Buttons.	24 yds. Pink Jaconet.
3 Glycerine Syringes.	12 lb. Boracic Lint.
3 I. R. (Esophagus Tubes.	400 lb. Absorbent Wool.
1 Set Leiter's Coils.	3 Inst. Tables.
2 Fracture Cradles.	2 Operation Tables.
12 Straps.	4 Boxes for Dressings.
2 Body Cradles.	2 Sterilizers.
3 Bed Cradles.	2 Ligature Troughs.
3 Pieces Splinting.	4 Sponge Jars.
6 lb. Guttapercha.	4 Solution Jars, 3 galls.
2 Ice Caps.	4 Solution Bowls.
2 Bed Rests.	4 Solution Bowls.
6 Sets Lined Splints.	2 Sets 3 Dressing Trays.
12 doz. Safety Pins.	4 Inst. Trays.
6 doz. 1-inch Calico Bandages.	4 Inst. Trays.
24 doz. 3-inch Calico Bandages.	18 Bed Pans.
6 doz. 6-inch Calico Bandages.	6 Urinals.
36 doz. 3-in. Calico Bandages, O.W.	4 Solution Jars, 2 galls.
4 doz. 4-inch Flannel Bandages.	6 Tube Clips, large.
2 doz. 6-inch Flannel Bandages.	22 Bottles of Mercuric Chloride.
4 doz. 4-inch Domette Bandages.	20 lb. Carb. Acid Crystals.
6 doz. 3-in. Plaster Paris Bandages.	8 yds. Tubing for Solution Jars.
6 Tins Plaster Paris.	2 doz. Tubes Eucaïne.
18 Spools Plaster, 1 inch.	1 doz. Tubes of Cocaine.
18 Spools Plaster, 2 inch.	3 doz. Tubes Glass Reels.
12 Spools Plaster, 3 inch.	12 Blocks.
12 Bottles Drainage Tubing.	24 yds. Cords.
12 yds. Drainage Tubing.	2 doz. Pulleys.

APPENDIX S.

REGULARS.

OFFICERS AND MEN TREATED IN PORTLAND HOSPITAL.

OFFICERS.

REGIMENT.	RANK.	NAME.	DISEASE.
10th Hussars . . .	Major . .	Alexander, Harvey . .	Gunshot wound of side (VI. 1), severe.
10th Hussars . . .	Lieutenant . .	Milbanke, Sir John . .	Gunshot wound of right leg (IX. 1), severe.
6th Innis. Dragoons . .	2nd Lieutenant . .	Gibson, Thomas George . .	Gunshot wound of arm (VIII. 1), severe.
1st Royal Munster Fus.	Captain . .	Hendriks, Campbell . .	Dysentery.
1st Yorks Regiment . .	Captain . .	Orr, Michael Harrison . .	Gunshot wounds of thigh and abdomen.
Bufs, 2nd East Kent . .	Captain . .	Godfrey-Faussett . .	Catarrh, duodenum & bile duct.
6th Innis. Dragoons (at.)	Lieutenant . .	Davies-Cooke, A. . .	Dysentery.
10th Hussars . . .	Captain . .	Scott, Lord George . .	Acute dysentery.
2nd K.O.R.L.R. . .	Captain . .	Boyce, John Henry . .	Pleurisy.
2nd Worcester . . .	Captain . .	Thomas, Berkeley Hardinge . .	Gunshot wound of spine.
2nd Worcester . . .	Lieutenant . .	Ruxton, Fitzherbert . .	Gunshot wound of shoulder.
Royal Field Artillery . .	2nd Lieutenant . .	Jameson, Kenneth Eustace . .	Diarrhoea.
6th Innis. Dragoons . .	2nd Lieutenant . .	Amphlett, Chas. Edward . .	Debility.
Australian Mounted Inf.	Lieutenant . .	Tremearne, Arthur . .	Gunshot wound of ankle.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Worcester . . .	2nd Lieutenant .	Carr, Martin R. J. Newman	Gunshot wound of knee.
2nd Bedford . . .	Lieutenant .	Leader, John	Dysentery.
2nd Wiltshire . . .	Lieutenant .	Brown, Walter Sidney	Gunshot wound of left arm.
2nd Bengal Lancers	Civ. Surgeon .	Eaves, Wilberforce Vaughan	Dysentery.
Army Service Corps	Captain .	Commelme, Francis H. Bagot	Influenza.
2nd K.O.Y. Light Inf.	Captain .	Harrison, James Molyneux	S.C. Fever.
2nd K.O.Y. Light Inf.	Captain .	Marrable, Arthur George	Enteric fever.
2nd Northampton .	2nd Lieutenant .	Mallinson, Henry	Enteric fever.
3rd Grenadier Guards	Lieutenant .	Barton, Charles Walter	Sunstroke.
3rd Imperial Yeomanry .	Captain .	Heneage, Godfrey	Enteric fever.
5th Imperial Yeomanry .	Lieutenant .	Tristram, Uvedale	Fever and sore throat.
R.A.M.C. . . .	Lieut. & Qr.-Mr.	Piper, Edwin James	Enteritis.
7th Dragoon Guards	Lieutenant .	Delap, George	S.C. Fever.
2nd Bedford . . .	Lieutenant .	Jenkins, Wm. Reginald	Diarrhoea.
2nd Coldstream Guards .	2nd Lieutenant .	Leader, John	Contusion of thigh.
2nd Wiltshire M.I.	Major .	Baring, Hon. Caryl	Ankylosis.
2nd S.W.B. . . .	Captain .	Rowden, Henry Weatherall	Debility.
Loch's Contingent	Lieut. & Qr.-Mr.	Jones, Ed. Whitmore	Heat stroke.
2nd Wiltshire . . .	Lieutenant .	Smith, George Halford	Influenza.
1st Div. Field Hospital .	Civ. Surgeon .	Williams, D.	Hernia.
1st Imperial Yeomanry .	Lieutenant .	Tindale, Wentworth	Enteritis.
2nd Rifle Brigade . .	Lieutenant .	Brodrick, St John	Influenza.
6th Scots Imp. Yeomanry	Major .	Bond, Algernon	Gunshot wound of thigh, frac. femur.
1st Imperial Yeomanry .	Lieutenant .	Coke, Percy	Influenza.
7th Imperial Yeomanry .	Surgeon-Captain	Thynne, Lord Alexander	Diarrhoea.
2nd King's Royal Rifles	Captain .	Wellford, Francis	Debility.
7th Imperial Yeomanry .	Captain .	Lainson, Alexander	Diarrhoea.
7th Imperial Yeomanry .	Lieutenant .	Bolitho, Wm. Ed. Thomas	Diarrhoea.
		Carey, Lewis	Diarrhoea.

REGIMENT.	RANK.	NAME.	DISEASE.
Royal Engineers . . .	Lieutenant . . .	Jones, Wm. Henry . . .	Dysentery.
1st Essex . . .	2nd Lieutenant . . .	Raleigh, George Hebden . . .	Gunshot wound of pelvis.
2nd Bedford . . .	Lieutenant . . .	Leader, Jno. . .	Dysentery.
2nd North Stafford . . .	Lieutenant . . .	Weldon, Arthur . . .	Debility.
1st Oxford L.I. . .	Captain . . .	Ruck-Keene, Lancelot Henry . . .	Dysentery.
16th Lancers . . .	Captain . . .	Sloane, Stanley, R. F. A. . .	Gunshot wound of head.
2nd S.W.B. . .	2nd Lieutenant . . .	Dickenson, Douglas Jno. . .	Dysentery.
1st West Riding . . .	2nd Lieutenant . . .	Bowes-Wilson, John H. . .	Gunshot wound of head.
"A" Vet. Dep. . .	Civ. Vet. Surgeon . . .	Trydell, Fred. Wm. . .	Dysentery.
1st Gordon Highlanders . . .	2nd Lieutenant . . .	Sworder, Fred. Robert . . .	Tonsillitis.
Royal Field Artillery . . .	2nd Lieutenant . . .	Cornes, Hugh . . .	Enteric fever.
City Imperial Volunteers . . .	Captain . . .	Cousins, F. J. . .	Debility.
R.A.M.C. . .	Major . . .	Barratt, Herbert James . . .	Wound of hand.
R.A.M.C. . .	Lieutenant . . .	Cuddon-Fletcher, A. J. M'Nab . . .	Enteric fever.
Royal Field Artillery . . .	Lieutenant . . .	Hinde, Allan . . .	Enteric fever.
Royal Horse Artillery . . .	Captain . . .	Hine-Haycock, V. Randolph . . .	Diarrhoea.
Royal Field Artillery . . .	Lieutenant . . .	Blois, Dudley . . .	Diarrhoea.
1st Scots Guards . . .	Lieut. & Qr.-Mr. . .	Payne, George . . .	Enteric fever.
Life Guards . . .	Captain . . .	Gosling, Wm. Sullivan . . .	Enteric fever.
2nd D.C.L.I. . .	Captain . . .	French, Houston . . .	Enteric fever.
Marshall's Horse . . .	2nd Lieutenant . . .	Ollivier, Robert Harold . . .	Diarrhoea.
Marshall's Horse . . .	Lieutenant . . .	Hull, George Henry . . .	Gunshot wound of arm, slight.
Marshall's Horse . . .	Lieutenant . . .	Barry, Arthur Joseph . . .	Gunshot wound of forearm, severe.
N.S.W. A.M.C. . .	Major . . .	Fiaschi, Thomas Henry . . .	Debility.
R.A.M.C. . .	Lieutenant . . .	Wood, Leonard . . .	Debility.
9th Lancers . . .	Lieutenant . . .	Brooke, Victor . . .	Gunshot wounds of finger and hand.
1st Coldstream Guards . . .	Lieutenant . . .	Hutchinson, Cecil . . .	S.C. Fever.
10th Hussars . . .	2nd Lieutenant . . .	Cadogan, Hon. W. G. Sidney . . .	S.C. Fever.

REGIMENT.	RANK.	NAME.	DISEASE.
R.A.M.C.	Major	Bond, Richard Pratt .	Debility.
Marshall's Horse .	Major	Marshall, George .	Gunshot wound of shoulder.
Marshall's Horse .	Lieutenant	Whitney, Wm. Peach .	Gunshot wound of abdomen.
Oxford Light Infantry	Lieutenant	Logan, Ronald Mackenzie	Varicocele.
10th Hussars .	Major	Alexander, Harvey .	Gunshot wound of gluteal region.
Kitchener's Horse .	Captain	Warren, Fred. John .	Gunshot wound of shoulder, slight.
Royal Engineers .	Lieutenant	Brown, Claude Russell .	Gunshot wound of knee joint.
2nd Dragoon Guards	Lieutenant	Vaughan, Chas. Jerome .	Gunshot wounds of forearm and abdomen.
Victoria Artillery .	Captain	Johnston, George .	Diarrhœa.
2nd Shropshire L.I.	Major	Dawkins, Charles Dyrwhit	Gunshot wound of foot.
Royal Horse Artillery	Captain	Radcliff, Robt. Edwin Lowndy .	Enteric fever.
2nd Manchester	Major	Abbott-Anderson, John Henry .	Dysentery.
6th Division .	Chaplain	Mullineux, Matthew .	Diarrhœa.
Royal Artillery .	Lieutenant	Barton, Richard Lionel .	Diarrhœa.
Coldstream Guards	Lieutenant	Wilmott, Ralph .	Diarrhœa.
Royal Field Artillery	Captain	Fordyce Buchann, Geo. Charles	Enteric fever.
Royal Garrison Artillery	Captain	Currie, Arthur Cecil .	Enteric fever.
Royal Garrison Artillery	Colonel	Hannay, Ramsay Rainsford	Diarrhœa.
1st Coldstream Guards	Captain	Wilkinson, N. R. .	Enteric fever.
Royal Garrison Artillery	Captain	Owen, C. M. E. .	Enteric fever.
17th Lancers .	Captain	Collins, Thomas Gerrard .	Thrombosis.
2nd Bedford .	Captain	Rowe, Earnest Fentimmer .	Abscess, buttock.
2nd Bedford .	Major	Hammond, Thomas .	Influenza.
Royal Field Artillery	2nd Lieutenant	Mellor, Abel .	Enteric fever.
R.A.M.C.	Major	Nichol, Charles .	Dysentery.
Grenadier Guards .	Captain	Nugent, George Colborne .	Enteric fever.
Militia M.S.C.	Captain	Mortis, Harold Edward .	Enteric fever.

REGIMENT.	RANK.	NAME.	DISEASE.
Victorian Artillery .	Captain .	Johnston, George .	Enteric fever.
2nd Royal Warwick .	Captain .	Herbert, A. C. .	Enteric fever.
Royal Artillery .	Captain .	Austin, Jno. Gardiner .	Enteric fever.
Imperial Yeomanry .	Captain .	Smith, Carlton C. D. .	Enteric fever.
Royal Field Artillery .	2nd Lieutenant .	Synnot, Wilfred Thomas .	Enteric fever.
Royal Field Artillery .	Lieutenant .	Peckham, Richard Hay .	Enteric fever.
City Imperial Volunteers	Captain .	Cousins, F. J. .	V.D.H.
6th Royal Warwick .	Captain .	Davenport, Walter Henry .	Enteric fever.
Royal Field Artillery .	Lieutenant .	Farguhar, James .	Enteric fever.
Marshall's Horse .	Major .	Marshall, George .	Gunshot wound of shoulder.
Army Service Corps .	Captain .	Cannot, Ferdinand Ed. .	Dysentery.
Imperial Yeomanry .	Lieutenant .	Goodden, Jno. Bernhard .	Enteric fever.
Royal Field Artillery .	Colonel .	Chapman, Lionel J. A. Harbin .	Injury of chest.
Royal Garrison Artillery .	Captain .	Webb, Audrey Henry .	Enteric fever.
R. Canadian Regiment .	Lieutenant .	Kaye, John Henry .	Debility.
Lancaster Fusiliers .	Major .	Caunter, James Eales .	Contraction finger.
Imperial Yeomanry .	Lieutenant .	Kesteven, Lord .	Iritis.

MEN.

REGIMENT.	RANK.	NAME.	DISEASE.
Royal Horse Artillery .	Gunner .	Carr, Sydney .	Gunshot wound of face (II. 1), slight.
6th Innis. Dragoons .	Private .	George, William .	Gunshot wound of leg and arm (IX. 41).
6th Dragoon Guards .	Private .	Wood, George .	Gunshot wound of chest.
Loyal North Lancs. .	Private .	Nolan, James .	Debility.

REGIMENT.	RANK.	NAME.	DISEASE.
10th Hussars . . .	Private . . .	Smith, Charles . . .	Gunshot wound of right thigh (IX. 1), severe.
Royal Highlanders . . .	Corporal . . .	Willson, John . . .	Gunshot wound of right arm (I), slight.
2nd Royal Berks . . .	Private . . .	Ayres, Charles . . .	Gunshot wound of face (II. 1), slight.
2nd Royal Berks . . .	Private . . .	Bridcutt, Matthew . . .	Gunshot wound of left foot (IX. 1), slight.
6th Dragoon Guards . . .	Corporal . . .	Pickens, Richard . . .	Gunshot wound of left arm.
Mounted Inf., R.W.F. . .	Private . . .	Evans, Thomas . . .	Gunshot wound of left arm (VIII. 1), slight.
10th Hussars . . .	Sergeant . . .	Fownes, John . . .	Gunshot wound of face.
10th Hussars . . .	Private . . .	Sharples, Thomas . . .	Gunshot wound of neck.
2nd Royal Berks . . .	Private . . .	Stanley, Henry . . .	Gunshot wound of neck (III. 1), severe.
Royal Horse Artillery . . .	Gunner . . .	Wells, Francis James . . .	Gunshot wound of left leg (I), slight.
2nd Royal Berks . . .	Private . . .	Vaughan, Christopher . . .	Gunshot wound of right shoulder (VI. 1), slight.
6th Dragoons . . .	Private . . .	Wardroper, Charles . . .	Gunshot wound of left shoulder.
2nd Royal Berks . . .	Private . . .	Looker, Albert . . .	Gunshot wound of left leg (IX. 1), severe.
2nd Coldstream Guards . . .	Private . . .	Spires, Robert . . .	Gunshot wounds of eye and neck.
1st Suffolk . . .	Private . . .	Clarke, William . . .	Gunshot wound of right thigh (IX. 2).
Royal Horse Artillery . . .	Driver . . .	Flood, Percy . . .	Gunshot wound of right hand (VIII. 1), slight.
10th Hussars . . .	Corporal . . .	Brisley, William . . .	Gunshot wound of left shoulder (VIII. 1), severe.
6th Dragoons . . .	Private . . .	Zacarnini, Robert . . .	Gunshot wounds of right and left thighs (IX. 1), severe.
Royal Horse Artillery . . .	Gunner . . .	Handley, James . . .	Gunshot wound of right hip (VI. 1), slight.

REGIMENT.	RANK.	NAME.	DISEASE.
9th Lancers . . .	Private	Amos, Fred.	Dysentery.
1st Suffolk . . .	Lance-Corporal.	Pettitt, William	Gunshot wound of right shoulder.
6th Dragoons . . .	Private	Gardiner, Alexander	Gunshot wound of right forearm (VIII. 1), severe.
2nd Northampton . . .	Private	Cross, Phillips	Inflammation of liver.
Army Ordnance Corps . . .	Staff Sergeant	Stitson, Walter Loins	Neurasthenia D.C., 10/1/00.
Northampton . . .	Sergeant	Green, Edward	Dysentery.
12th Lancers . . .	Private	Hunt, Edward	D.C. V.D.H., 10/1/00.
Army Ordnance Corps . . .	Staff Sergeant	Stetson, Walter Louis	Neurasthenia.
12th Lancers . . .	Private	Hunt, Edward	V.D.H.
Royal Field Artillery . . .	Driver	Byron, Robert	Periostitis.
Royal Engineers . . .	Lance-Corporal.	M'Donald, Daniel Joseph	Varix.
6th Dragoon Guards . . .	Private	Smith, John	Wound of elbow.
10th Hussars . . .	Private	Aylmer, Alfred	Injury to knee.
N.C.M.I. . . .	Conductor.	Clarke, Henry	Fracture of femur, simple.
2nd Northampton . . .	Private	Skoyles, Edward	Hernia.
K.O.Y.L.I. . . .	Private	Bond, William	Dysentery.
Royal Horse Artillery . . .	Gunner	Phelps, Herbert Robert	Hernia.
9th Lancers . . .	Corporal	Shaw, Clarke	D.C. Ruptured muscle, adductor longus (905), 23/1/00.
1st Yorkshire . . .	Private	Estill, Charles	Dysentery.
Bedford M. I. Regiment	Private	Pratt, Walter	D.C. G.S.W. with compound frac- ture, and radius (VIII. 4), 23/1/00.
12th Lancers . . .	Corporal	Shepherd, Henry	D.C. Enteric fever, 23/1/00.
1st Scots Guards . . .	Private	Davies, Henry	Spinal Meningitis.
2nd Coldstream Guards . . .	Private	Wilson, Joseph	Inflammation of liver.
9th Lancers . . .	Private	Brown, Harry	D.C. Enteric fever, 23/1/00.
9th Lancers . . .	Corporal	Tarrant, Thomas Alfred	S.C. Fever.
Royal Artillery, 8th . . .	Gunner	Alexander, William	Inflammation of liver.
R.A., W.Div. Siege Train	Sergeant	Holcombe, Herbert	Sunstroke.

REGIMENT.	RANK.	NAME.	DISEASE.
R.A.M.C.	Private	Tubb, William Joseph	Abscess of Liver.
12th Lancers	Private	Russell, James	S.C. Fever.
2nd Coldstream Guards	Private	Cleave, John Henry	Club-foot (c).
3rd Coldstream Guards	Private	Beech, John	Gunshot wound of knee (XI.), Patella.
12th Lancers	Private	Jameson, Albert	Gunshot wound of ankle, R.L.E. (XI.), Tibia.
2nd Coldstream Guards	Private	Cooke, Robert	Gunshot wound of hand, R.V.E. (VIII.), Carpus.
1st Essex Regiment	Private	Chase, William	Gunshot wound of R.L. extremity.
6th Innis. Dragoons	Private	Little, Charles	Dis. C. Eczema, 1/2/00.
Army Service Corps	Private	Sheppard, Frank	D.C. Enteric fever, 7/2/00.
3rd Grenadier Guards	Private	Brooks, Charles	D.C. V.D.H., 10/2/00.
2nd Northampton	Sergeant	Harbour, John William	Dysentery.
9th Lancers	Corporal	Shaw, Clarke	Ruptured muscle, adductor longus.
2nd Bedford Regt. M.I.	Private	Pratt, Walter	Gunshot wound, with compound frac. of ulna and radius (VIII. 4).
12th Lancers	Corporal	Shepherd, Henry	Enteric fever.
9th Lancers	Private	Brown, Harry	Enteric fever.
2nd D.C.L.I.	Private	Bartlett, Frank	Rheumatism.
1st Yorks Regiment	Corporal	Bell, Fred	Bright's disease.
6th Innis. Dragoons	Corporal	Mead, Fred	D.C. Pneumonia, 21/1/00.
2nd Coldstream Guards	Private	Buorton, George Edward	Rheumatism.
2nd Shropshires	Private	Jones, Vaughan	Hæmorrhoids.
2nd D.C.L.I.	Private	Everton, William	Functional disease of the heart.
2nd Seaforth Highlanders	Private	Campbell, Henry	Piles.
Scots Greys	Shoeing-Smith	Clarke, James	Gunshot wound of left wrist, L.V.E.
3rd Grenadier Guards	Sergeant	Walsh, Ernest	D.C. Mitral regurgitation, V.D.H., 31/1/00.
Royal Horse Artillery	Driver	Belsey, John	Gunshot wound of right leg, in action (IX. 2).

REGIMENT.	RANK.	NAME.	DISEASE.
6th Innis, Dragoons	Corporal	Meade, Fred	Pneumonia.
1st Essex Regiment	Private	Cudmore, Robert	Gunshot wound of thigh (IX. 1, 2), V.D.H.
1st Gordon Highlanders	Private	Johnson, Edward	Sprain back, contusion of belly (shell wound).
2nd Northampton	Private	Leverett, Luke	Dysentery.
Army Service Corps	Driver	Hensby, Walter	D.C. Enteric Fever, 7/2/00.
1st Scots Guards	Private	Devereaux, Patrick	S.C. Fever.
2nd Coldstream Guards.	Private	Meyers, George	Dysentery.
1st A. & S. Highlanders	Sergeant	Dunbar, Robert	Dysentery.
3rd Grenadier Guards	Private	Fox, Thomas	Gunshot wound, frac. ilium (V. 2).
2nd Northampton	Private	Pepper, Rupert	Ulcerated throat.
Royal Engineers	Sapper	Bishop, Robert	D.C. Enteric fever, 5/2/00.
1st Yorks Regiment	Private	Ewing, Alexander	Rheumatism.
2nd D.C.L.I.	Private	Williams, Arthur	Inflammation of stomach.
Army Service Corps	2nd Corporal	Knight, Henry Harold	Enteric fever.
2nd Coldstream Guards.	Private	M'Laughlin, Patrick	Rheumatism.
1st Yorks Regiment	Private	Flood, Charles	Gunshot wound of thigh and buttock (IX. 1).
R.A.M.C.	Private	Fletcher, Joseph	Enteric fever.
1st Welsh Regiment	Private	Green, John	Prolapsus (6).
2nd Royal Berks	Private	Bunning, John	Gunshot wound of wrist joint, in action (VIII. 4).
1st Scots Guards	Private	Morris, James	Enteric fever.
12th Lancers	Private	Caveney, Edward	Contusion of brain.
2nd Seaforth Highlanders	Private	M'Donald, John	Rheumatism.
2nd Colstream Guards	Private	Gale, James	Rheumatism.
1st Essex Regiment	Lance-Corporal.	Harris, Edward	Debility.
10th Hussars	Corporal	Wood, Samuel	Debility.
10th Hussars	Private	Denial, Percy	Dis. action of heart.

REGIMENT.	RANK.	NAME.	DISEASE.
Army Service Corps	Driver	Horne, Charles	D.C. Debility, 11/2/00.
2nd K.O.Y.L.I.	Private	Burberry, Alfred	Enteric fever.
10th Hussars	Private	Rothery, John	D.C. Debility, 11/2/00.
3rd Grenadier Guards	Sergeant	Walsh, Ernest	V.D.H. Mitral regurgitation.
6th Innis. Dragoons	Private	Little, Charles	Eczema.
Royal Engineers	Sapper	Bishop, Robert	Enteric fever.
2nd Royal West Surrey.	Private	Holt, William	Gunshot wound of shoulder (VIII. 1), severe.
2nd Royal West Surrey.	Lance-Corporal.	Light, Frederick	Abscess in axilla.
2nd West Yorks	Private	Wilson, George	Contusion.
2nd Lances. Fusiliers	Private	Edwards, John Henry	Gunshot wound of thigh, R.L.E.
2nd East Surrey	Private	Busby, Arthur	(IX. 1), severe.
2nd East Surrey	Private	Mason, John	Gunshot wound of hip, R.L.E.
2nd Royal Dublin Fus.	Private	M'Bride, John	(IX. 1), severe.
2nd East Surrey	Private	Moss, George	Gunshot wound of foot, R.L.E.
2nd Lances. Fusiliers	Lance-Corporal.	Jones, John	(IX. 1), slight.
Royal Engineers	Sapper	Jefferson, Benjamin	Gunshot wound of right calf, R.L.E.
2nd Royal Scots Fusiliers	Private	Jory, Frederick Henry	(IX. 1), severe.
3rd King's Royal Rifles.	Private	Beckford, Walter	Gunshot wound of back (VI. 1), severe.
1st Border Regiment	Private	Bavin, William	Gunshot wound of face (II. 1), slight contusion of belly.
1st Royal Welsh Fus.	Private	Cull, George	Dysentery.
2nd Scots Fusiliers	Private	Sargent, Arthur	Sunstroke.
2nd King's Royal Rifles.	Private	Curtis, Arthur	Dysentery.
2nd Royal Dublin Fus.	Private	Roach, Leonard	Piles and rheumatism.
			Colic.
			Ague.
			Malarial fever.

REGIMENT.	RANK.	NAME.	DISEASE.
1st Innis. Fusiliers	Private	Goodfellow, John	Eczema.
2nd Middlesex Regiment	Private	Elliott, Thomas Henry	Rheumatism.
2nd Gordon Highlanders	Private	Graham, Donald	Dysentery.
2nd Irish Fusiliers.	Private	Madden, Edward	Diarrhœa.
2nd Lancs. Regiment	Private	Stanier, George	Pneumonia.
2nd Dorset Regiment	Private	Brown, James	Tonsillitis.
2nd Dorset Regiment	Private	Randall, Walter	Pneumonia.
2nd Dorset Regiment	Corporal	Banbury, Joseph	D.C. Enteric fever, 22/2/00.
2nd Royal Lancers	Private	Black, Alfred	Rheumatic fever.
R.A.M.C.	Private	Denmead, Charles	Ague.
Royal Artillery	Driver	Symonds, John	Ague.
2nd West Yorks	Private	Doherty, Tom	Rheumatism.
2nd Royal Irish Fusiliers	Lance-Corporal	Kent, Edward	Rheumatism.
Royal Artillery	Gunner	Robson, George	Sunstroke.
Army Service Corps	Private	Sheppard, Frank	Enteric fever.
Army Service Corps	Driver	Hensby, Walter	Enteric fever.
3rd Grenadier Guards	Private	Brooks, Charles	V.D.H.
Q.M.I.	Private	Martin, Thomas Ben.	Rheumatism.
Q.M.I.	Private	Anderson, Edward	Rheumatism.
Q.M.I.	Bugler	Devitt, William	Hydrocele.
1st N.F.M.I.	Private	Matthews, George	Gunshot wounds of right and left arms, R.I.L.V.E. (1), severe.
1st A. & S. Highlanders	Private	Pyper, Robert	S.C. Fever.
1st A. & S. Highlanders	Private	Woodward, George	D.C. Enteric fever, 26/2/00.
Highland Light Infantry	Private	Fletcher, George	Debility.
1st A. & S. Highlanders	Private	Watson, James	S.C. Fever.
Royal Horse Artillery	Driver	Maley, Henry	Sprain.
9th Lancers	Lance-Corporal	Pulleyne, Percy	Palpitation.
1st Coldstream Guards	Private	Tunney, James	S.C. Fever.
9th Lancers	Sergeant	Banks, Arthur	Dysentery.

REGIMENT.	RANK.	NAME.	DISEASE.
1st A. & S. Highlanders	Private	Pitman, Henry	Diarrhœa.
1st Coldstream Guards	Private	Gibbons, William	Ulcer.
Army Service Corps	Driver	Horne, Charles	Debility.
10th Hussars	Private	Rothery, John	Debility.
1st Scots Guards	Private	Broadbent, George	Enteric fever.
2nd Black Watch	Corporal	Hamilton, Alexander	Abscess.
2nd Shropshire L.I.	Private	Buxton, James	Inflammation of tympanum.
2nd K.O.Y.L.I.	Private	Cooke, Martin	S.C. Fever.
Army Service Corps	Staff Serg.-Maj.	Gleeson, Patrick John	Debility.
2nd Cheshire Regiment	Private	Walley, Thomas	Rheumatism.
2nd Northumb. Fus.	Drummer	Nelson, Thomas	Piles.
1st Life Guards	Trooper	Carter, Donald	S.C. Fever.
Royal Horse Artillery	Gunner	Cousins, Joseph	S.C. Fever.
1st H.L.I.	Private	Smith, Alexander	Dysentery.
2nd Seaforth Highlanders	Lance-Corporal	Cattuch, Alexander	Sprain of left ankle.
9th Lancers	Private	Gabe, Ivor	Rheumatism.
1st East Lancashire	Private	Thronton, James	Inflammation of bladder, catarrh.
2nd Seaforth Highlanders	Private	Bensley, Joseph	D.C. Enteric fever, 5/3/00.
1st Scots Guards	Private	Hines, Arthur	Dysentery.
2nd North Stafford	Private	Allsebrook, Edwin	Bronchitis.
2nd North Stafford	Private	Yorke, Fred	Dyspepsia.
12th Lancers	Private	Barnes, John	Gunshot wound of right shoulder, R.V.E. (VIII. 1), severe.
2nd D.C.L.I.	Private	Heyden, Harry	Neuralgia.
2nd North Stafford	Private	Griffiths, Joseph	Dislocation of articular cartilage of knee.
1st East Lancashire	Private	Trivett, George	Eczema.
2nd S.W.B.	Private	Kirvan, Patrick	Debility.
2nd S.W.B.	Private	Keen, Francis Robert	Burn, sunburn.
12th Lancers	Corporal	Burdett, Henry	Concussion.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Shropshire L.I.	Private	Nelson, Albert	Pleurisy.
Royal Field Artillery	Driver	Williams, Thomas	Pneumonia.
1st Welsh	Private	Price, Morgan	Anæmia.
Scots Greys	S. Serg.-Farrier.	Brash, Robert	Enteritis.
Royal Engineers	Sapper	Stephens, Tom	Dysentery.
2nd S.W.B.	Private	Cripps, William	Wound of neck (III. 1), severe.
Royal Horse Artillery	Gunner	Phelps, Herbert Robert	Hernia.
1st Suffolk	Private	Allpress, Charles	Chronic rheumatism.
9th King's Royal Rifles.	Private	Morey, Edward	Gunshot wound of eye (II. 1), severe.
9th King's Royal Rifles.	Bugler	Lehane, Michael	Conjunctivitis.
6th Innis. Dragoons	Private	Whaustall, Edward Charles	Gunshot wound of left foot, L.L.E. (IX. 1), severe.
2nd Worcester	Private	Pitt, Thomas	Gunshot wound of abdomen (wall), (V. 1), severe.
9th King's Royal Rifles.	Private	Murphey, Patrick	Sore throat, pericarditis.
6th Innis. Dragoons	Private	Cowdery, William	Gunshot wound of thigh.
2nd Wiltshire	Private	Ponting, Frederick	Gunshot wounds of lung, hip, and calf (IV. 5, and IX.), severe.
2nd Worcester	Private	Buckle, William	Gunshot wound of right thigh, R.L.E. (IX.), severe.
Army Service Corps	2nd Corporal	West, James	S.C. Fever.
10th Hussars	W.O. Serg.-Maj.	Honess, George	Dysentery.
1st Prince of Wales'			
Own Yorks. Regiment	Private	Appleton, George	D.C. Paralysis, 22/2/00.
10th Hussars.	Private	Kent, Arthur	Gunshot wound of thigh, R.L.E. (IX. 1), severe.
2nd Worcester	Private	Callif, Frederick	Gunshot wound of left leg, L.L.E. (IX. 1), severe.
2nd Worcester	Private	Green, George	Gunshot wounds of right hand, left arm, left thigh, head.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Dorset	Corporal	Banbury, Joseph	Enteric fever.
1st Prince of Wales' Own Yorks. Regiment	Private	Appleton, George	Paralysis.
2nd Gloucester	Private	Poole, George	Gunshot wound of knee.
1st West Riding	Private	Sharpe, Walter	Gunshot wound, L.L.E. (IX. 1), severe.
2nd Northampton	Private	Ilett, Edward	Sunstroke.
2nd Bedford	Private	Kennedy, Charles	Gunshot wound of left extremity, L.L.E. (IX. 1), slight.
2nd Cheshire	Private	Flynn, Cornelius	Gunshot wound of chest (IV. 5).
1st Gordon Highlanders	Private	Bowie, Alexander	Gunshot wound of left extremity, L.L.E. (IX.), tibia.
Royal Engineers	Sapper	Brown, John	Contusion of back.
1st Oxford Light Inf.	Private	Mundy, Arthur	Gunshot wound of back (VI. 1).
1st West Riding	Corporal	Burwood, Edward	Gunshot wound of foot, L.L.E. (IX. 1), slight.
1st Coldstream Guards	Private	Chapman, William	Enteric fever, parotid bubo.
10th Hussars	Private	James, Frank	Gunshot wound of chest (IV. 5).
1st A. & S. Highlanders	Private	Woodward, George	Enteric fever.
1st Welsh	Colour-Sergeant	Williams, William	Gunshot wound of left arm, L.L.E. (VIII. 1), slight.
1st Welsh	Private	Jones, William John	Gunshot wound of hand, R.V.E. (VIII. 1), slight.
1st Welsh	Private	Williams, William	Gunshot wound of left arm (VIII. 1), severe.
1st Essex	Corporal	Clarke, Charles	Gunshot wound of throat (III. 1), severe.
Scots Greys	Private	M'Hugh, Hugh	Gunshot wound of left forearm, L.V.E. (VIII. 1), slight.

REGIMENT.	RANK.	NAME.	DISEASE.
Royal Engineers . .	Sapper . .	Tidnan, James . .	Inflammation of ears, tympanum suppurative.
1st A. & S. Highlanders . .	Private . .	Irwin, Robert . .	Piles.
Royal Horse Artillery . .	Trumpeter . .	Brightwell, Ernest . .	Gunshot wound of shoulder, R.V.E. (VIII. 1), severe.
9th Lancers . .	Sergeant . .	Bletchly, John . .	Gunshot wound of left arm, J.V.E. (VIII. 1), severe.
2nd Worcester . .	Private . .	Rippager, Maurice . .	Enteric fever.
Royal Field Artillery . .	Gunner . .	Buckley, George . .	Contusion.
Royal Field Artillery . .	Corporal . .	Webb, Arthur . .	Debility.
Royal Horse Artillery . .	Gunner . .	Nettleship, Tom . .	Contusion.
1st Welsh Regiment . .	Private . .	Harris, Morgan . .	Gunshot wound of thigh, L.L.E. (IX. 1), slight.
1st Welsh Regiment . .	Private . .	Davies, Edward . .	Gunshot wound of shoulder, R.V.E. (VIII. 1), slight.
1st Welsh Regiment . .	Private . .	Finelly, James . .	Gunshot wound of chest (IV. 5).
1st Welsh Regiment . .	Private . .	Edwards, William . .	Gunshot wound of abdomen (V. 1), severe.
1st Welsh Regiment . .	Private . .	Donovan, Richard . .	Gunshot wound of thigh, R.J.E. (IX. 1), severe.
1st Welsh M.I. . .	Private . .	Williams, Charles . .	Gunshot wound of leg (IX. 1).
2nd S.W.B.M.I. . .	Private . .	Gibbs, John . .	Gunshot wound of forearm (VIII. 1), slight.
2nd Norfolk Regiment . .	Private . .	Hill, George . .	S.C. Fever.
1st Coldstream Guards . .	Private . .	Kaye, Sam . .	S.C. Fever.
2nd Dragoon Guards . .	Corporal . .	Teasdale, Henry . .	S.C. Fever.
Royal Engineers . .	2nd Corporal . .	Jackson, John Herbert . .	Rheumatism.
3rd Grenadier Guards . .	Private . .	Williams, John . .	Rheumatism.
1st East Lancs. . .	Private . .	Parkerson, William . .	Dysentery.

REGIMENT.	RANK.	NAME.	DISEASE.
1st Essex Regiment	Drummer	Ravenhill, John	Gunshot wound of leg (IX. 1), severe.
1st K.O.S.B.	Sergeant	Watson, John	Gunshot wound of chest (IV. 5).
1st A. & S. Highlanders	Private	Morton, Frederick	Ague.
Royal Scots M.I.	Private	Ruffell, James	S.C. Fever.
1st Gordon Highlanders	Private	Letton, Charles	Rheumatism.
1st Gordon Highlanders	Lance-Corporal.	Fox, Edward	Ague.
2nd Seaforth Highlanders	Private	Bensley, Joseph	Enteric fever.
3rd Grenadier Guards	Lance-Corporal.	Claughton, James Legh	S.C. Fever.
Royal Canadian	Private	Craig, Ernest Dean	Sprain.
1st West Riding	Lance-Corporal.	Hall, Frederick	Gunshot wound of hip (IX. 1), severe.
1st West Riding	Private	Beard, Charles	Dysentery.
1st Coldstream Guards	Lance-Corporal.	Noble, John Christopher	Debility.
1st Coldstream Guards	Private	Buckingham, Charles	Debility.
Royal Horse Artillery	Driver	Tucker, Richard	Dysentery.
Royal Engineers	Sapper	Batt, Frederick	Diarrhoea.
Royal Engineers	Sapper	Tyrell, Robert William	S.C. Fever.
2nd Lincoln M.I.	Private	Dawson, William	Dysentery.
2nd Lincoln M.I.	Private	Strickland, George	Dysentery.
2nd Royal Highlanders	Private	Wilson, William	Gunshot wound of thigh (IX. 1), severe.
2nd Royal Highlanders	Private	Pickett, Frank	V.D.H.
1st K.O.S.B.	Private	Baybutt, Henry	Gunshot wound of hip (IX. 1), slight.
Army Service Corps	Corporal-Farrier	Noake, Arthur	Abscess.
Army Service Corps	Driver	Murray, Frederick	S.C. Fever.
1st Gordon Highlanders	Private	Strange, Thomas	Dysentery.
10th Hussars	Private	O'Brien, Edward	Gunshot wound of shoulder (VIII. 1), slight.
R.A.M.C.	Corporal	Hinton, Walter	Debility.

REGIMENT.	RANK.	NAME	DISEASE.
1st Yorks M.L.	Private	Daly, John	Debility.
2nd Shropshire L.I.	Corporal	Clarke, Frederick	S.C. Fever.
2nd Shropshire L.I.	Lance-Corporal	Mound, Edward	Rheumatism.
2nd North Staffs.	Private	Lawless, Austin	Thrombosis (285) (1).
1st Oxford	Private	Jackson, Samuel Edward	Rheumatism.
2nd Gloucester	Private	Collier, Alfred	Varix.
2nd Cheshire	Lance-Sergeant	Holdcroft, Frederick Wm.	Dysentery.
2nd Seaforth Highlanders	Bandsman	Caton, Joseph	Gunshot wound of hip (IX. 1), severe.
2nd Seaforth Highlanders	Private	Taylor, Peter	Rheumatism.
2nd Seaforth Highlanders	Private	Plume, George	Rheumatism.
1st Gordon Highlanders	Private	Taylor, George	Rheumatism.
1st A. & S. Highlanders	Private	Smith, James	Rheumatism.
Royal Engineers	Sergeant	D'Anthrean, Edward	Rheumatism.
Royal Engineers	Sapper	Weghorn, William	Debility.
Royal Engineers	Sapper	Pierce, Walter	Dysentery.
Royal Engineers	Driver	Tibble, Frank	S.C. Fever.
2nd S.W.B.	Private	Connors, Thomas	Stricture.
1st Welsh	Private	Reeves, Alfred	Gunshot wound of left elbow, J.V.E. (XI).
1st Welsh	Private	Young, George	Dysentery.
Royal Horse Artillery	Driver	Hill, Henry	Iritis.
2nd Coldstream Guards	Private	Berry, Alfred	Rheumatism.
2nd Coldstream Guards	Private	Kirk, John Henry	S.C. Fever.
3rd Grenadier Guards	Private	Sheeran, George	S.C. Fever.
2nd Norfolk	Private	Butters, William	Gunshot wound of forearm (VIII. 1), slight.
1st Essex	Private	Cordwell, William	Dysentery.
1st West Riding	Private	Hodgson, John	Gunshot wound of face (II. 1), severe.
2nd D.C.L.I.	Sergeant	Jane, Samuel	Rheumatism.
2nd D.C.L.I.	Private	Smith, Thomas	S.C. Fever.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd D.C.L.I.	Private	Waitender, Fred.	Dysentery.
2nd Cheshire	Private	Tolley, William . . .	Hernia.
1st Oxford L.I.	Private	Robinson, Richard . .	Varicose veins.
2nd K. Shropshire L.I. . .	Private	Sharpe, William James	Dysentery.
1st K.O.S.B.	Private	Hanlon, Thomas . . .	Rheumatism.
1st K.O.S.B.	Private	Peacock, Henry . . .	Rheumatism.
2nd East Kent	Private	Brown, Albert	Piles.
2nd East Kent	Private	Hucketepp, Walter . .	Hernia.
1st Yorks	Private	Wilson, George	Dysentery.
1st Yorks	Private	Pedler, Harry	Rheumatism.
2nd Lincoln	Private	M'Causland, Andrew .	Dysentery.
2nd Lincoln	Private	Mosley, Charles . . .	Rheumatism.
1st Oxford	Private	Farrant, John	Varicose veins.
1st Oxford	Private	Hobbin, Frederick . .	Varicose veins.
2nd Cheshire	Private	Barnes, William . . .	Ague.
2nd Hants	Private	Brown, John	Debility.
2nd Gloucester	Corporal	West, Harry	Debility.
2nd Gloucester	Lance-Corporal.	Brown, Frank	Diarrhœa.
Royal Engineers	Driver	Regan, Thomas	Debility.
Royal Engineers	Sapper	Murray, Zacharia . . .	Contusion.
2nd Seaforth Highlanders	Private	Morrison, Angus . . .	Rheumatism.
2nd Seaforth Highlanders	Lance-Corporal.	Allen, Fred	Orchitis.
1st A. & S. Highlanders	Private	Noble, Frederick . . .	Synovitis.
2nd Royal Highlanders	Driver	Connelly, Thomas . . .	Onychia.
2nd Royal Highlanders	Private	Purdie, Robert	S.C. Fever.
2nd Royal Highlanders	Private	Mackay, Angus	Gunshot wound of leg (IX. 1), severe.
2nd Seaforth Highlanders	Private	Maclean, John	Dysentery.
2nd Seaforth Highlanders	Private	Stewart, James	Gunshot wound of neck (III. 1), slight.
2nd Seaforth Highlanders	Private	Gregory, Roland	Gunshot wounds of legs (IX. 1), severe.
			Gunshot wound of left arm, amp., L.V.C. (VIII. 4).

REGIMENT.	RANK.	NAME.	DISEASE.
1st A. & S. Highlanders	Private	M'Guiness, William	Gunshot wound of mouth (II. 1), severe.
6th Innis. Dragoons	Private	Mitchell, John	Enteric fever.
1st West Riding M.I.	Lance-Corporal	Blackmun, Charles	Gunshot wound of hip (IX. 1), severe.
1st West Riding	Private	Perham, William	Gunshot wound of hand, amp. of finger (VIII. 1), severe.
2nd Bedford	Sergeant	Cooper, Henry	Gunshot wounds of left arm and chest (IV. 5, and VIII. 1), slight.
2nd Lincoln	Private	Mahoney, Thomas	Gunshot wound of left arm (VIII. 1), severe.
2nd Shropshire	Private	Smith, William	Gunshot wounds of left arm and neck (III. 1), severe (VIII. 1), slight.
2nd S.W.B.M.I.	Private	Chandler, Harry	Gunshot wound of left foot (IX. 1), severe.
2nd Royal Warwick	Private	Newman, Charles	Gunshot wound of neck (III. 1), severe.
1st Yorks M.I.	Private	Burrows, George	Gunshot wound of left foot (IX. 1), severe.
1st Essex	Private	Speller, Henry	Gunshot wound of right arm (VIII. 1), severe.
1st Oxford	Lance-Corporal	Jones, Horace	Gunshot wound of arm (VIII. 1), severe.
Royal Horse Artillery	Corporal	Ridler, William Henry	Wound of left foot (IX. 1), slight.
Royal Horse Artillery	Corporal	Gillions, Clement	Wound of left foot (IX. 1), slight.
Royal Field Artillery	Bombardier	Simpson, Fred	Bronchial catarrh.
1st East Lancs.	Private	Holmes, Patrick	Rheumatism, whitlow.
2nd West Yorks	Private	Crowther, Ernest	Burn.
2nd S.W.B.	Private	Halloway, George	Pneumonia.
1st York & Lancs.	Private	King, George	Tubercle of lung.

REGIMENT.	RANK.	NAME.	DISEASE.
1st Loyal North Lancs..	Private	Courtney, Henry	Gunshot wound of foot (IX. 1), severe.
1st Loyal North Lancs..	Private	Haley, Thomas	Shell wound, leg.
2nd S.W.B.	Private	Baner, John	Otitis.
1st Yorks	Private	Smith, Arthur	Gunshot wound of arm (VIII. 1).
2nd D.C.L.I.	Private	Hughes, Joseph James	Debility.
Bufs, E. Kent	Private	Hales, George	Gunshot wound of head (I. 3).
Royal Engineers	Corporal	Drew, John Samuel Henry	Debility.
Royal Engineers	Sapper	Bull, Edward	Dysentery.
Royal Engineers	Sapper	Jazzard, Ewen Albert	Dysentery.
Royal Engineers	Sapper	Kenning, Alfred	Enteric fever.
Royal Field Artillery	Bombardier	Allen, Joseph	Dysentery.
Royal Field Artillery	Gunner	Grindle, William	Abscess.
2nd K.O.Y.L.I.	Private	Stanley, William	Ulcer, cornea.
2nd K.O.Y.L.I.	Sergeant	Weeks, Arthur	Debility.
2nd K.O.Y.L.I.	Private	Colley, John Henry	Dysentery.
2nd K.O.Y.L.I.	Private	Dungworth, Wm. Henry	D.H.A.
1st P.W.O.Y.R.	Private	Wilkinson, Arthur	Dysentery.
Royal Scots Greys	Private	Sutherland, William	Gunshot wound of mouth (I. 1), slight.
3rd S.W.B.	Private	Sullivan, John	Sec. syphilis.
2nd East Kent	Private	Walker, Thomas	Dysentery.
1st Loyal North Lancs..	Bandsmen.	Blount, Arthur	Bronchitis.
1st Loyal North Lancs..	Private	Lee, George	Bronchitis.
1st Loyal North Lancs..	Private	Crohan, John	Bronchitis.
2nd Shropshire L.I.	Private	Morgan, Thomas	Abscess.
2nd Gloucester	Corporal	Court, Herbert	Pleurisy.
2nd Gloucester M.I.	Lance-Corporal.	Mitchell, William	Gunshot wound of groin.
2nd Northampton	Private	Cooke, Edwin	Enteric fever.
2nd Northampton	Private	Lane, William	Piles.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Northampton .	Private	Percival, George.	Bronchitis.
2nd Northampton .	Private	Wheatley, Thomas	Debility.
2nd Coldstream Guards.	Private	Snow, Joseph	Debility.
R.A.M.C.	Private	Duckworth, Robert	Debility.
1st Yorks	Private	Lown, Frederick.	Gunshot wound of thigh.
2nd Royal Highlanders.	Private	Irons, Peter	Gunshot wound of elbow.
1st Essex Regiment	Private	Wilson, Henry	Gunshot wound of elbow.
Royal Horse Artillery	Driver	Davies, John Walter	Enteric fever.
Royal Horse Artillery	Driver	Brown, Ernest	Skin disease.
Royal Horse Artillery	Bombardier	Smith, Herbert Frederick	Dysentery.
Royal Horse Artillery	Corporal	Turner, Thomas Hall	Fæcal accumulation.
Royal Horse Artillery	Gunner	Fisher, F. C.	Enteric fever.
2nd Royal Warwick	Lance-Corporal.	Goode, C.	Enteric fever.
Royal Warwick	Private	Hilliard, T.	Enteric fever.
1st Essex	Private	Wilson, W.	Enteric fever.
1st Essex	Private	Constance, E.	Enteric fever.
1st Yorks	Private	Duffy, J.	S.C. Fever.
1st Life Guards	Corporal	Parker, John Briggs	Gunshot wound of shoulder.
1st Life Guards	Private	Wrouat, Horatio	Dysentery.
1st Welsh	Private	Arthur, Christopher	Enteric fever.
1st Welsh	Private	Phillips, Arthur	Enteric fever.
1st Welsh	Sergeant	Jessop, Frederick Charles	Enteric fever.
1st Welsh	Private	Walters, John Arnold.	Enteric fever.
1st Welsh	Sergeant	Marsh, John Edward	Enteric fever.
1st Welsh	Private	Shadick, George.	Enteric fever.
2nd Cheshire	Private	Jelfs, James	Enteric fever.
2nd Cheshire	Private	Cook, George William	Enteric fever.
2nd Royal Warwick	Lance-Corporal.	Goode, Arthur	Enteric fever.
2nd Royal Warwick	Private	Reading, John	Enteric fever.
2nd Royal Warwick	Private	Elliott, Thomas	Enteric fever.

REGIMENT	RANK.	NAME.	DISEASE.
2nd Royal Warwick	Private	Glenham, James	Enteric fever.
2nd Royal Warwick	Private	Sugden, Leonard	Dysentery.
1st Essex	Private	Wilson, Witham	Enteric fever.
1st Essex	Private	Constance, Edward	Dysentery.
1st Essex	Private	Nuttall, Albert	Debility.
1st Essex	Private	Manty, Arthur	Enteric fever.
1st Essex	Sergeant	Offen, Harold Brunswick	Debility.
1st Essex	Private	Gibson, Charles	Enteric fever.
1st Essex	Private	Perrin, John	Enteric fever.
1st Essex	Private	Rasin, Alroy Edward	Enteric fever.
1st Essex	Private	Logdale, William	Enteric fever.
1st Essex	Private	Arthey, William	Enteric fever.
1st Essex	Corporal	Bowtle, Basil	Enteric fever.
1st Yorks	Private	Holmes, William	Enteric fever.
1st Yorks	Private	Hall, Joseph	Enteric fever.
1st Yorks	Private	Carter, William Frederick	Enteric fever.
1st Yorks	Private	Duffy, John	Enteric fever.
1st Yorks	Lance-Corporal	Fane, Henry John	Debility.
Royal Horse Artillery	Bombardier	Loveys, Henry	Enteric fever.
Army Service Corps	Staff-Sergeant	Jones, John	Debility.
Army Service Corps	Lance-Corporal	Holland, Albert	Dysentery.
R.A.M.C.	Private	Bodkin, Arthur John	Enteric fever.
R.A.M.C.	Private	Morden, Albert	Enteric fever.
R.A.M.C.	Private	Greaves, George Benjamin	Debility.
1st Welsh	Private	Pritchard, David	Enteric fever.
2nd Coldstream Guards	Colour-Sergeant	Scott, Richard	Diarrhœa.
Royal Horse Artillery	Driver	Faint, Arthur	Enteric fever.
2nd Life Guards	Trooper	Rhodes, William	Dysentery.
2nd Royal Highlanders	Private	Duff, Thomson	Enteric fever.
2nd Royal Highlanders	Private	Somers, Archibald	Gonorrhœa.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Seaforth Highlanders	Private	Morrison, Andrew	Debility.
2nd Seaforth Highlanders	Private	Kennedy, Donald	Debility.
2nd Seaforth Highlanders	Private	West, William	S.C. Fever.
2nd Seaforth Highlanders	Private	M'Lean, Angus	Chronic (1044).
Norfolk, M.I.	Corporal	Bass, Robert	Enteric fever.
2nd Shropshire L.I.	Sergeant	Crowder, Alfred	Gunshot wound of forearm.
2nd Shropshire L.I.	Private	Young, Arthur	Enteric fever.
2nd Shropshire L.I.	Private	Lawrence, Edward	Dysentery.
2nd Shropshire L.I.	Corporal	Appleton, Thomas	Chronic rheumatism.
Royal Field Artillery	Gunner	Hart, George William	Enteric fever.
Royal Field Artillery	Shoeing-Smith	Fox, Charles	Typhlitis.
D.C.L.I.	Private	M'Ginty, Thomas	Nervous weakness.
1st Scots Guards	Private	Herd, Robert	Chronic rheumatism.
7th Dragoon Guards	Private	Dennis, Thomas	Gunshot wound of shoulder, slight.
8th Hussars	Private	Short, George	Gunshot wound of forearm, slight.
8th Hussars	Private	Reilly, Patrick	Gunshot wounds of thigh and buttock.
8th Hussars	Private	Fleming, James	Gunshot wound of forearm, slight.
14th Hussars	Private	Shepherd, Charles	Gunshot wound of foot.
14th Hussars	Sergeant	Piper, Leonard	Gunshot wound of axilla, slight.
14th Hussars	Private	Cotton, John	Gunshot wound of buttock.
14th Hussars	Private	Sabatini, Walter	Gunshot wound of foot, slight.
14th Hussars	Private	Jones, William	Gunshot wounds of right and left foot, slight.
14th Hussars	Private	Sheldon, Henry	Gunshot wound of thigh.
14th Hussars	Corporal-Saddler	Spring, John	Gunshot wound of knee, severe.
9th Lancers	Private	Hay, Henry	Gunshot wound of thigh, slight.
9th Lancers	Private	Elliott, John	Gunshot wound of thigh.
9th Lancers	Private	Webber, Walter	Gunshot wound of axilla.
9th Lancers	Private	Kerr, James	Gunshot wound of thigh.

REGIMENT.	RANK.	NAME.	DISEASE.
9th Lancers . . .	Private . . .	Taylor, Samuel . .	Gunshot wound of foot.
9th Lancers . . .	Corporal . . .	Holmes, Arthur . .	Gunshot wound of left foot.
9th Lancers . . .	Private . . .	Twyford, George . .	Gunshot wound of knee, severe.
17th Lancers . . .	Private . . .	Lindley, George . .	Gunshot wounds of shoulder and neck.
17th Lancers . . .	Sergeant . . .	Cooke, James . . .	Gunshot wound of thigh, frac. femur, severe.
1st Welsh . . .	Lance-Corporal.	Carpenter, William . .	Enteric fever.
Army Service Corps	Sergeant . . .	Martin, Frederick Charles . .	Enteric fever.
Shropshire . . .	Private . . .	Roe . . .	Gunshot wound of head.
1st Connaught Rangers	Lance-Corporal.	McElliott, Michael . .	Gunshot wound of left shoulder.
2nd Royal West Kent . .	Lance-Corporal .	Smith, George . . .	Gunshot wound of left forearm.
9th Lancers . . .	Private . . .	Clegg, Arthur . . .	Gunshot wound of back.
1st Essex . . .	Qr.-Mr.-Sergeant	Brewster, Charles . .	Enteric fever.
1st Welsh . . .	Private . . .	Martin, Harry . . .	Enteric fever.
2nd Essex M.I. . .	Private . . .	Spelling, John . . .	Gunshot wound of knee.
2nd Essex . . .	Private . . .	Whitbread, Stephen . .	Enteric fever.
Buffs M.I. . . .	Lance-Corporal.	Devonport, Joseph . .	Enteric fever.
2nd Shropshire L.I. . .	Lance-Sergeant.	Clarke, George . . .	Enteric fever.
2nd Shropshire L.I. . .	Colour-Sergeant	Herbert, William . .	Enteric fever.
2nd Worcester M.I. . .	Private . . .	Sandalls, William . .	Gunshot wound of shoulder.
2nd Worcester M.I. . .	Private . . .	Clarke, Thomas Henry . .	Enteric fever.
1st Gordon Highlanders	Sergeant . . .	Harris, George . . .	Enteric fever.
1st Wilts M.I. . . .	Private . . .	Barnett, Harry . . .	Enteric fever.
1st Gordon Highlanders	Private . . .	Carr, Thomas . . .	Enteric fever.
Royal Irish . . .	Private . . .	Dady, William . . .	Gunshot wound of chest.
21st Lancers . . .	Private . . .	Owen, George . . .	Enteric fever.
4th King's Royal Rifles .	Private . . .	Mitchell, George Henry . .	Enteric fever.
2nd Hampshire . . .	Lance-Sergeant.	Dymott, William King . .	S.C. Fever.
2nd Hampshire . . .	Private . . .	Phillips, George . . .	Enteric fever.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Hampshire	Private	Osmeat, Walter	Rheumatism.
2nd Hampshire	Private	Cadby, James	Diarrhœa.
2nd Hampshire	Private	Sturgess, William	Chronic rheumatism.
2nd Lincoln	Private	Walpole, Robert	Diarrhœa.
2nd Lincoln	Private	Gray, William	Diarrhœa.
1st Scots Guards	Private	Baker, Frederick John	Enteric fever.
10th Hussars	Private	Martin, Frederick	Enteric fever.
7th Hussars	Private	Wilson, James	Enteric fever.
Royal Engineers	Sapper	Dudman, Henry	Enteric fever.
Royal Artillery	Gunner	Hamper, William	Fracture, base of skull.
2nd Royal Highlanders	Private	Whyte, James	Gunshot wound of right leg.
2nd Royal Highlanders	Private	M'William, Frederick	Gunshot wound of right leg.
2nd Royal Highlanders	Private	Mitchell, James	Enteric fever.
1st Gordon Highlanders	Private	Farquharson, William	Enteric fever.
1st Gordon Highlanders	Private	Cunningham, Patrick	Enteric fever.
Royal Horse Guards	Trooper	Smith, William	Gunshot wound of back.
Royal Horse Guards	Trooper	Saunders, Thomas	Gunshot wound of neck.
2nd Life Guards	Trooper	Craxton, Walter	Enteric fever.
10th Hussars	Private	Allan, George	Gunshot wound of abdomen.
10th Hussars	Lance-Corporal	Orbell, Walter	Gunshot wound of leg.
6th Dragoon Guards	Sergeant	Brain, William Thomas	Enteric fever.
6th Innis. Dragoons	Private	Fitzgerald, Roberts.	Dysentery.
6th Innis. Dragoons	Private	Kelly, John	Fracture of clavicle.
1st Roy. Welsh Fusiliers	Private	Stephens, John	Wound of face.
2nd Worcester	Private	Reeves, Frank	Gunshot wound of left forearm.
2nd East Yorks	Private	Harvey, Edwin	Dyspepsia.
Royal Horse Artillery	Driver	Mayhew, Charles	Enteric fever.
2nd Coldstream Guards	Private	Dickinson, Charles	Enteric fever.
1st Royal Sussex	Private	Bullock, Walter	Enteric fever.
1st Royal Sussex	Driver	Elms, Arthur	Enteric fever.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Shropshire L.I.	Private	Webb, William	Enteric fever.
2nd Shropshire	Private	Yeo, Percy	Debility.
12th Lancers	Private	Harrison, Charles James	Enteric fever.
12th Lancers	Private	Walker, William	Enteric fever.
Royal Artillery	Driver	Williams, Frederick	Enteric fever.
Royal Horse Artillery	Gunner	Dew, Charles	Enteric fever.
2nd North Stafford	Private	Vann, Charles	Enteric fever.
6th Innis. Dragoons	Private	Trimingham, Alfred	Enteric fever.
2nd Shropshire L.I.	Private	Cooper, Joseph	Dysentery.
Royal Horse Guards	Corporal	Matthison, Ernest William	Debility.
10th Hussars	Corporal	Dixon, Ernest	Gunshot wound of head.
Royal Horse Artillery	Driver	Cross, William	Rheumatism.
Royal Field Artillery	Private	Chaplin, Samuel	Enteric fever.
1st Oxford L.I.	Private	Corbett, William	Enteric fever.
1st Royal Irish	Private	Ryan, Frank	Enteric fever.
1st Royal Irish	Private	Martin, J.	Enteric fever.
1st Royal Irish	Sergeant	Healy, Hy. Taylor	Synovitis.
1st Royal Irish	Private	O'Gormon, Michael	Bronchitis.
1st Royal Irish	Private	Hayes, T.	Hernia.
1st Royal Irish	Private	Sullivan, William	S.C. Fever.
1st Royal Irish	Private	Hogan, Thomas	Diarrhea.
1st Royal Irish	Private	Flynn, James	Dysentery.
1st Royal Irish	Corporal	Sheehan, Stephen	S.C. Fever.
1st Royal Irish	Private	M'Cauley, John	Dysentery.
1st Royal Irish	Private	Sinnot, Nicholas	S.C. Fever.
1st Royal Irish	F. Sergeant	Dunne, Patrick	Debility.
1st Royal Irish	Private	Wilkie, William	Enteric fever.
1st Royal Irish	Private	Lee, Thomas	Enteric fever.
1st Royal Irish	Private	Walsh, John	Enteric fever.
1st Royal Irish	Private	Ryan, Patrick	Enteric fever.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Wilts . . .	Private	Brown, William . . .	Enteric fever.
2nd Wilts . . .	Private	White, W.	Enteric fever.
2nd Wilts . . .	Private	Norris, Samuel . . .	Enteric fever.
2nd Bedford . . .	F. Sergeant	Page, Joseph Wallace .	S.C. Fever.
2nd Bedford . . .	Private	Gregg, Charles . . .	Dysentery.
2nd Bedford . . .	Private	Bowery, Charles . . .	Debility.
2nd Bedford . . .	Private	Burrage, Harold . . .	Enteric fever.
2nd Bedford . . .	Private	Taylor, William . . .	Enteric fever.
2nd Bedford . . .	Private	Dillon, Francis . . .	Enteric fever.
2nd Bedford . . .	Private	Bullard, F.	Enteric fever.
2nd Bedford . . .	Private	Parkins, W.	Enteric fever.
2nd Worcester . . .	Private	Dyer, Owen	Dysentery.
2nd Worcester . . .	Private	Thomas, Cecil	Enteric fever.
2nd Worcester . . .	Private	Sparrow, Harry . . .	Enteric fever.
2nd Worcester . . .	Private	Welsh, John	Enteric fever.
2nd Worcester . . .	Private	Stoneham, Frank . . .	Enteric fever.
2nd Worcester . . .	Private	Thomson, James William	Enteric fever.
2nd Worcester . . .	Private	Holloway, Charles . .	Enteric fever.
2nd Worcester . . .	Private	Hodson, Harry	Enteric fever.
2nd Worcester . . .	Private	Bartram, George . . .	Enteric fever.
2nd Worcester . . .	Private	Preston, James	Enteric fever.
2nd Worcester . . .	Private	Partridge, John . . .	Enteric fever.
2nd Worcester . . .	Private	Dicks, Frank	Enteric fever.
2nd Worcester . . .	Private	Roche, Thomas	Enteric fever.
2nd Worcester . . .	Private	Piggott, Alfred	Enteric fever.
2nd Worcester . . .	Private	Barnett, William . . .	Dysentery.
2nd Worcester . . .	Private	Harrison, John	Enteric fever.
2nd Worcester . . .	Private	Cummins, John	Dysentery.
2nd Worcester . . .	Private	Young, James	Debility.
2nd Worcester . . .	Private	Erdwein, Fred	Enteric fever.

REGIMENT.	RANK.	NAME.	DISEASE.
8th Hussars . . .	Private . . .	Butcher, James . . .	Enteric fever.
14th Hussars . . .	Private . . .	Kitson, Charles . . .	Enteric fever.
K.O.S.B.	Private . . .	Brown, John Edward . . .	S.C. Fever.
14th Hussars . . .	Shoeing-Smith . . .	Gibbard, John . . .	Rheumatism.
1st Highland L.I. . .	Private . . .	Hearn, Andrew . . .	Debility.
1st Highland L.I. . .	Private . . .	Hearn, Michael . . .	Debility.
1st Highland L.I. . .	Private . . .	Brown, John . . .	Colic.
2nd Royal Highlanders . . .	Private . . .	Errol, William . . .	Abscess of face.
2nd Royal Highlanders . . .	Private . . .	Craige, Richard . . .	Blister, heel.
2nd Royal Highlanders . . .	Private . . .	Grewer, Alexander . . .	Debility.
2nd Royal Highlanders . . .	Private . . .	Ross, George . . .	Sprain of knee.
1st A. & S. Highlanders . . .	Private . . .	Franklin, George . . .	Debility.
1st A. & S. Highlanders . . .	Corporal . . .	M'Nab, William . . .	Ague.
1st A. & S. Highlanders . . .	Private . . .	M'Namee, Patrick . . .	Ulcer, cornea.
1st A. & S. Highlanders . . .	Private . . .	Brown, James . . .	Ulcer, leg.
2nd Seaforth Highlanders . . .	Private . . .	Day, Edward . . .	Blister, feet.
2nd Seaforth Highlanders . . .	Private . . .	White, Charles . . .	Inflammation of stomach.
17th Lancers . . .	Private . . .	Anderson, Joseph . . .	Enteric fever.
1st Coldstream Guards . . .	Drummer . . .	Borlase, Richard . . .	Enteric fever.
1st Berks	Private . . .	Andrews, John . . .	Gunshot wound of upper extremity, severe.
R.A.M.C.	Private . . .	Gregory, Henry . . .	Enteric fever.
1st Essex	Lance-Corporal . . .	James, Henry . . .	Enteric fever.
2nd Shropshire L.I. . .	Private . . .	Moore, William . . .	Enteric fever.
2nd West Riding . . .	Private . . .	Murphy, F.	Enteric fever.
2nd West Riding . . .	Sergeant . . .	Adams, A.	Enteric fever.
2nd West Riding . . .	Private . . .	Smith, H.	Enteric fever.
2nd West Riding . . .	Corporal . . .	Finnigan, E.	Enteric fever.
2nd West Riding . . .	Private . . .	Bellaby, J.	Fistula, arm.
2nd West Riding . . .	Private . . .	Ballard, R.	Piles.

REGIMENT.	RANK.	NAME.	DISEASE.
1st Coldstream Guards .	Private	Hirst, John Thomas	Enteric fever.
2nd Scots Guards .	Private	Hutchens, Frederick	Enteric fever.
1st Welsh .	Private	Phillips, Alfred	Enteric fever.
Royal Horse Artillery	Gunner	Moore, Alfred John	Enteric fever.
Royal Artillery	Gunner	Wright, Harry	Enteric fever.
2nd East Yorks	Lance-Corporal	Barnes, Robert	Dysentery.
2nd East Yorks	Private	Studdy, Alfred	Sprain of ankle.
2nd East Yorks	Private	Leech, John	Blister, feet.
Army Service Corps	Driver	Truss, Ferdinand Charles	Enteric fever.
Army Service Corps	Driver	Sullivan, John	Abscess, axilla.
1st Royal Irish	Private	Shea, John	Enteric fever.
1st Royal Irish	Private	Hoolahan, Daniel	Enteric fever.
1st Royal Irish	Private	Flood, Martin	Enteric fever.
1st Royal Irish	Private	O'Flynn, Edward	Enteric fever.
1st Leinster .	Private	O'Brian, George	Enteric fever.
2nd Bedford .	Private	Smith, Henry	Dysentery.
2nd Bedford .	Private	Holland, Joseph	Dysentery.
2nd Bedford .	Sergeant	Gordon-Cumming, Robert	Dysentery.
2nd Bedford .	Private	Smith, Frederick	Enteric fever.
2nd S.W.B. .	Private	Hinton, Joseph	Heat stroke.
2nd Wilts .	Private	Burchell, William	Dysentery.
2nd West Kent	Private	Bingham, Charles	Dysentery.
2nd Worcester	Private	Tolley, George	Enteric fever.
1st S. Staffs .	Private	James, George	Enteric fever.
1st S. Staffs .	Private	Hooker, Joseph	Enteric fever.
1st S. Staffs .	Private	Clarke, Charles	Myalgia.
1st S. Staffs .	Private	M'Farlane, James	Rheumatism.
Royal Field Artillery	Sergeant	Atkins, William	Enteric fever.
R.V.A. .	Driver	Hubbard, Frederick	Enteric fever.
14th Hussars .	Private	Gent, William	Dysentery.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Dragoons	Corporal	Yeddes, James	Dysentery.
7th Dragoon Guards	Private	Bax, William George	Dysentery.
2nd Shropshire L.I.	Private	Mullany, John	Dysentery.
1st Worcester	Bandsmen.	Heagney, Michael John	Enteric fever.
R.Y.A.	Gunner	Willavoise, Edwin	Abscess, face.
1st West Riding	Private	Turner, Cli.	Enteric fever.
1st West Riding	Private	Ogden, Aubiron	Enteric fever.
1st West Riding	Private	Copeland, Charles	Enteric fever.
1st West Riding	Private	Cowper, John	Enteric fever.
Army Service Corps	Corporal	Goulding, Joe	Enteric fever.
2nd Wilts	Private	Ferns, Jacob	Enteric fever.
2nd Wilts	Private	Phillips, Samuel George	Enteric fever.
2nd Wilts	Private	Archer, Sidney	Enteric fever.
2nd Wilts	Private	Cowdery, Charles	Enteric fever.
2nd Wilts	Private	Sainsbury, George	S.C. Fever.
2nd Buffs	Private	Osborne, Albert Edward	Enteric fever.
2nd Buffs	Private	Tutt, Joseph Henry	Enteric fever.
2nd Buffs	Private	Slingsby, Sydney	Enteric fever.
2nd Buffs	Corporal	Elliott, Arthur	Enteric fever.
2nd Buffs	Private	Fickner, Thomas	Enteric fever.
2nd Buffs	Lance-Corporal.	Wise, Walter	Enteric fever.
2nd Buffs	Private	Wilson, Ernest John	Enteric fever.
Royal Engineers	Bugler	Smithman, Frank	Enteric fever.
2nd Worcester	Sergeant	Hamshaw, William	Enteric fever.
2nd Worcester	Private	Randall, William	S.C. Fever.
2nd Worcester	Private	Guest, Arthur	S.C. Fever.
2nd Worcester	Private	Fitzer, William	Enteric fever.
1st Royal Irish	Private	Kavannah, Phillip	S.C. Fever.
1st Royal Irish	Private	Kennedy, John	S.C. Fever.
2nd Worcester	Private	Moore, William	Enteric fever.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Royal Warwick	Private	Williams, James	Debility.
2nd Royal Warwick	Private	Craven, John	Diarrhœa.
6th Dragoon Guards	Corporal	Dixon, Frank	Enteric fever.
1st Gordon Highlanders	Sergeant	Thompson, Daniel	Gunshot wound of left arm.
1st Gordon Highlanders	Private	Kynoch, David	Gunshot wound of left foot.
1st Gordon Highlanders	Private	Shelley, John	Gunshot wound of hand.
1st Gordon Highlanders	Private	M'Kenzie, William	Gunshot wound of left foot.
1st Gordon Highlanders	Private	Melville, David	Gunshot wounds of right and left legs and buttock.
1st Gordon Highlanders	Corporal	Lowe, Thomas	Gunshot wound of right side.
1st Gordon Highlanders	Sergeant	Batterby, James	Gunshot wounds of neck and left leg.
1st Gordon Highlanders	Private	Giles, James	Gunshot wound of leg.
Royal Horse Artillery	Private	Evans, Charles	Dysentery.
Royal Horse Artillery	Trooper	Rouse, Robert John	Ulcer, hand.
Royal Horse Artillery	Driver	Williams, Arthur	Debility.
Royal Garrison Artillery	Gunner	Roche, George	Pneumonia.
Royal Engineers	Sapper	Day, Martin	Enteric fever.
Army Service Corps	Private	Crookenden, Hy. Campbell.	Inflammation, leg.
10th Hussars	Private	Hazleton, John	Enteric fever.
16th Lancers	Sergeant	Collins, George	Fracture.
1st West Riding M.I.	Private	Brennan, Thomas	Gunshot wound of hand.
1st West Riding M.I.	Private	Horton, Thomas	Gunshot wounds of thigh and arm.
1st Royal Irish M.I.	Private	Butler, William	Contusion of left hip.
1st Royal North Lancs.	Private	Willis, Edward	Debility.
1st Yorks	Driver	M'Lean, Charlie	Gunshot wound of hand.
1st Royal Sussex	Corporal	Hearn, Robert William	Gunshot wounds of right and left thigh.
2nd Hampshire	Private	Vincent, Alfred	S.C. Fever.
1st Suffolk M.I.	Private	Roper, William	Contusion.
2nd Northampton	Private	Harper, Frank	Piles.
2nd Dragoons	Lance-Corporal	Morgan, Albert William	Diarrhœa.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Essex . . .	Private . . .	Lattimore, James . . .	Rheumatism.
1st Derby . . .	Private . . .	Brammer, George . . .	Dysentery.
1st Derby . . .	Private . . .	Whybrow, George Arthur . . .	Dysentery.
2nd Shropshire L.I. . .	Private . . .	Lloyd, Arthur . . .	Stricture.
2nd Shropshire L.I. . .	Private . . .	Cook, Martin . . .	Debility.
2nd Shropshire L.I. . .	Private . . .	Gavin, Thomas . . .	D.A.H.
1st Cameron Highlanders . . .	Private . . .	Thompson, James . . .	Rheumatism.
1st K.O.S.B. . .	Private . . .	Farrell, Edward . . .	Bronchial catarrh.
13th Hussars . . .	S. Sergt.-Major . . .	Baker, George . . .	Dysentery.
14th Hussars . . .	Private . . .	Wollitt, Walter . . .	Rheumatism.
14th Hussars . . .	Private . . .	Smith, Joseph . . .	S.C. Fever.
2nd East Kent . . .	Private . . .	Lord, Charles . . .	Dysentery.
2nd East Kent . . .	Private . . .	Bryan, Thomas . . .	Dysentery.
2nd East Kent . . .	Driver . . .	Culmer, William . . .	Dysentery.
2nd East Kent . . .	Private . . .	Sands, William . . .	Epilepsy.
2nd Northampton . . .	Private . . .	Smith, Arthur . . .	Ague.
2nd Northampton . . .	Sergeant . . .	Wright, Alfred . . .	Rheumatism.
2nd Northampton . . .	Private . . .	Skins, William . . .	Debility.
2nd Northampton . . .	Private . . .	Evans, Frank . . .	S.C. Fever.
Royal Field Artillery . . .	Gunner . . .	Thompson, Henry . . .	Ague.
Royal Horse Artillery . . .	Gunner . . .	Hawkes, Peter . . .	Ulcer.
Royal Field Artillery . . .	Driver . . .	Foster, Benjamin . . .	Ague.
2nd Seaforth Highlanders . . .	Private . . .	Ramsey, Thomas . . .	Gunshot wound of thigh.
2nd Royal Highlanders . . .	Private . . .	Hadden, William . . .	Gunshot wound of left extremity.
2nd Royal Highlanders . . .	Lance-Corporal . . .	Kirkaldy, Charles . . .	Jaundice.
2nd Royal Highlanders . . .	Private . . .	Henley, George . . .	Dysentery.
1st Oxford L.I. . .	Private . . .	Shorter, Joseph . . .	Bronchial catarrh.
1st Oxford L.I. . .	Private . . .	Middleton, George . . .	Typhlitis.
2nd Hampshire . . .	Private . . .	Ayres, Joseph . . .	Rheumatism.
2nd Hampshire . . .	Private . . .	Barnes, John . . .	Dysentery.

REGIMENT.	RANK.	NAME.	DISEASE.
2nd Hampshire	Private	Hodges, Henry	Dysentery.
2nd East Kent	Private	Wiseman, Albert	Enteric fever.
2nd S.W.B.	Private	Clarke, Robert	Pleurisy.
16th Lancers	Private	Bishop, Edward	Debility.
1st Northumberland Fus.	Private	Finley, Thomas	Bronchitis.
1st Northumberland Fus.	Private	Deacer, Charles	Dysentery.
1st East Lancs.	Private	M'Cullocks, Thomas	Rheumatism.
1st Loyal North Lancs.	Private	Hollins, Arthur	Stricture.
1st Munster Fusiliers	Private	Callaghan, Dan.	Deafness.
2nd D.C.L.I.	Private	Cragg, Thomas	Epilepsy.
1st Royal Sussex	Private	White, William	Contusion of shoulder.
1st Royal Sussex	Private	Smith, Richard	Rheumatism.
1st A. & S. Highlanders	Private	M'Millan, Angus	Flat-foot.

IRREGULARS.

REGIMENT.	RANK.	NAME.	DISEASE.
S.J.A.B.	Private	Johnson	Diarrhœa.
S.J.A.B.	Private	Harness	Diarrhœa.
S.A.L.H.	Trooper	Carolin, Hamilton	Cullitis suppurating, hand.
Queensland M.I.	Trooper	Jackson, William	Malaria and debility.
S.A.L.H.	Lance-Corporal.	Grant, Arnold Murray	Dislocation of clavicle, simple.
Transport Gordon High-landers	Conductor.	Tietz, Gustave	Enteric fever.
S.A.L.H.	Trooper	Anderson, William George	Laryngitis.
S.A.L.H.	Trooper	Little, Robert	Rheumatism.
Naval Brigade	Stoker	James, Ebenezer	S.C. Fever.

REGIMENT.	RANK.	NAME.	DISEASE.
Rimington Guides .	...	Helps, John Stewart .	V.D.H.
N.S.W.M.R. .	Lance-Corporal .	Bateup, Albert .	Dysentery.
Victorian Mounted Rifles	Private .	Colley, Henry James .	Gunshot wound of head (I. 3).
West Australian .	Private .	Cunningham, James .	Gunshot wound of right thigh (IX. 1), severe.
Victorian Mounted Rifles	Corporal .	Macaulay, Dennis .	Gunshot wound of left thigh (IX. 1), severe.
Victorian Mounted Rifles	Private .	Gamble, William .	Gunshot wound of left shoulder (VIII. 1), severe.
West Australian .	Private .	France, Levi .	Gunshot wounds of left arm and back (VII. 1), severe.
Victorian Mounted Rifles	Private .	Wallace, Frederick William	Gunshot wounds of right and left thighs (IX. 1), severe.
Victorian Mounted Rifles	Private .	Peters, Erick .	Gunshot wound of femur, fracture through left hip and int. perineum.
Victorian Mounted Rifles	Private .	Bush, Henry .	Gunshot wound of left thigh.
N.Z.M.R. .	Sergeant .	Bond, John Henry Percy .	Periostitis.
Railway Pioneers .	Private .	Johnston, William .	Piles.
Army Service Corps	Conductor .	Foles, Charles .	Scalp wound.
Rimington's Guides	Private .	Spurr, William Herbert .	Gunshot wound of right eye.
S.J.A.B. .	Private .	Scettrins, W. A. .	Diarrhoea.
C.I.V. .	Trooper .	Gibson, Sunderland .	Dysentery.
Roberts' Horse .	Trumpeter .	O'Hara, James Christopher	Dysentery.
C.I.V. .	Private .	Chapman, Herbert William	Debility.
C.I.V. .	Private .	Pugsley, Ernest Osmond .	Diarrhoea.
Rimington's Guides	Trooper .	Read, Arthur .	Synovitis.
N.S.W.M.L. .	Bugler .	Binns, Christopher Snowdon	Gunshot wound of right thigh.
Roberts' Horse .	Trooper .	Bryan, Frederick Robert .	Rheumatism.
Loch's Horse .	Trooper .	Jones, John Hugh .	Fracture of ribs.
S.J.A.B. .	Private .	Freeman, Henry Francis .	Enteric fever.

REGIMENT.	RANK.	NAME.	DISEASE.
Victorian Mounted Rifles	Private	Ingliss, Lindsay Merson	Fracture of leg.
R.P.R.	Private	Phillipot, Frederick William	Piles.
S.J.A.B.	Private	Adams, George	Debility.
C.I.V.	Private	Lee, Griffith Boynton	Otitis.
Royal Canadian	Private	Harrison, Charles	Gunshot wound of forearm (VIII. 1).
Royal Canadian	Private	Tulloch, Alexander John	S.C. Fever.
S.J.A.B.	Private	Holloway, Harry	Lacerated wound of face (II. 1), slight.
Loch's Horse.	Trooper	Ford, Edgar	
S.J.A.B.	Private	Ellis, Frank J.	Enteric fever.
Q.M.I.	W.O. Sgt.-Major	Price, James George	Enteric fever.
Q.M.I.	Qr.-Mr.-Sgt.	Cooney, Teddes	Diarrhœa.
Q.M.I.	Corporal	Kidd, Alexander	Enteric fever.
Q.M.I.	Civil Servant.	Otter, Joseph	Enteric fever.
C.M.R.	Private	Marsh, Charles	Diarrhœa.
C.M.R.	Private	Trusler, Alfred Henry	Lumbago.
C.I.V.	Private	Harper, Alfred G. M. N.	Diarrhœa.
C.I.V.	Private	Lapwood, George	Hammer toe.
C.I.V.	Private	Hayer, William	Diarrhœa.
C.I.V.	Private	Briggs, F. J. William	Diarrhœa.
C.I.V.	Private	Hatley, Alfred	Dysentery.
C.I.V.	Private	White, John	Corns.
Q.M.I.	Private	Hopkins, Charles James	Loose cartilage.
Loch's Horse.	Corporal	Cutbill, Cecil Edward	Enteric fever.
Ceylon M.I.	Trooper	Williams, Francis	Teno-synovitis.
Ceylon M.I.	Trooper	Baird, George	Enteric fever.
Portland Hospital.	Seaman	Ryan, Andrew	Enteric fever.
Portland Hospital.	Seaman	Bushell, Harry	Tonsillitis.
Colonial Service	Civil Foreman	Theirbert, Victor	S.C. Fever.
Public Works Dept.			Enteric fever.

REGIMENT.	RANK.	NAME.	DISEASE.
Royal Canadian R.	Private	Culver, John Wright	Gunshot wound of calf.
Royal Canadian R.	Lance-Corporal.	Burns, Robert	Gunshot wound of forearm, slight.
Royal Canadian R.	Private	Scott, James	Debility.
Royal Canadian R.	Private	Atkinson, George	Chronic rheumatism.
N.S.W.M.I.	Private	Bird, Sidney	Enteric fever.
Marshall's Horse	Private	Cleaver, Ernest Patrick	Gunshot wound of axilla.
Marshall's Horse	Private	Reid, Alexander	Gunshot wound of thigh.
Marshall's Horse	Sergeant	Long, Ernest	Gunshot wound of arm.
Marshall's Horse	Private	Collett, James	Gunshot wound of buttock.
Boer Force	...	Botha, Fredk. Stephanus	Gunshot wound, fract. radius.
Boer Force	...	Botha, Jacobus Hendrik	Gunshot wound of thigh, fract. femur, severe.
Boer Force	...	Talija, John	Gunshot wound of thigh, slight.
Boer Force	...	Davell, Guiliam Johannes	Gunshot wound of hand, slight.
Boer Force	...	Kruger, Jan Aram	Gunshot wound of leg, severe.
Boer Force	...	Schmidt, Andres	Gunshot wound of left thigh, slight.
S.J.A.B.	Private	Bleasdale, Robert	Dysentery.
Royal Canadian Regt.	Corporal	Frawley, William	Enteric fever.
Royal Canadian Regt.	Sergeant	Fawcett, John	Enteric fever.
Royal Canadian Regt.	Private	Major, John	Headache.
Ceylon M.I.	Trooper	Humphrey, Edmund Luke	Enteric fever.
Rimington's Guides	Trooper	Sutton, Henry	Enteric fever.
Kitchener's Horse	Private	White, John	Gunshot wounds of arm and back.
Marshall's Horse	Corporal	Servill, George Harry	Malaria.
Post Office Corps	Sergeant	Willis, Frederick John	Enteric fever.
Roberts' Horse	Corporal	Shaw, William	Gunshot wound of right leg.
Roberts' Horse	Trooper	McClurty, Wm. Hamilton	Gunshot wound of leg.
Kitchener's Horse	Trooper	Gambling, Thomas	Gunshot wound of forearm.
Naval Brigade	Able Seaman	Cause, John	Enteric fever.
Naval Brigade	Able Seaman	Gilbert, Archibald	Enteric fever.

REGIMENT.	RANK.	NAME.	DISEASE.
Royal Canadian Regt.	Private	French, Thomas .	Enteric fever.
French's Scouts	Private	Bailey, Aiden .	Haematuria.
N.S.W. M.I.	Private	Barber, Charles Hume	Enteric fever.
S.J.A.B.	Private	Freeman, Henry Francis	Rheumatism.
	Civilian	Prackelt, Gustav .	Enteric fever.
S.J.A.B.	Private	Newnes, John Edward	Tonsillitis.
S.J.A.B.	Private	Harper, W. .	Tonsillitis.
C.I.V.	Trooper	Buckland, Henry Richard	Enteric fever.
	Private	Mitchell, William	Tonsillitis.
Loch's Horse.	Trooper	Faircloth, Richard	Debility.
Naval Brigade	Able Seaman	Skipp, Albert .	Diarrhoea.
Cape M.S.C.	Lance-Corporal.	Hesse, William .	Enteric fever.
S. Australian M.I.	Trooper	Macaulay, Aulay Babblyton	Dysentery.
S.J.A.B.	Private	Boreo, Henry James .	Enteric fever.
S.J.A.B.	Private	Pottinger, James	Enteric fever.
Imperial Yeomanry	Trooper	Wessberg, Harry Andrew	Gunshot wound of upper extremity, severe.
Imperial Yeomanry	Lance-Corporal.	Agnew, Herman M.	Gunshot wound of upper extremity.
Imperial Yeomanry	Lance-Corporal.	Robinson, Godfrey .	Enteric fever.
Cape Mounted Rifles	Trooper	Gumaclicus, Frederick P.	Enteric fever.
Cape Mounted Rifles	Trooper	Oxley, Joseph H.	Paralysis.
Queenstown V.R.	Trooper	Slater, Frederick	Enteric fever.
Brabant's Horse	Trooper	Harold, Richard .	Enteric fever.
Kaffrarian Rifles	Corporal	M'Laughlin, Thomas .	Dysentery.
Border Horse	Corporal	O'Donnell, Thomas	Enteric fever.
Lumsden's Horse	Private	Musket, Hunter .	Enteric fever.
S.J.A.B.	Private	Stratford, Samuel	Tonsillitis.
S.J.A.A.	Private	Newnes, John Edward	Enteric fever.
1st Imperial Yeomanry	Sergeant	Brown, George Edward	Enteric fever.
R.C.R.	Private	Gladwin, Stanhope	Dysentery.

REGIMENT.	RANK.	NAME.	DISEASE.
S.J.A.B.	Private	Holloway, Harry	Enteric fever.
Imperial Yeomanry	Private	Burden, George	Bronchitis.
S.J.A.B.	Private	Stratford, Samuel	Enteric fever.
S.J.A.B.	Private	Merchant, Thomas England	Enteric fever.
S.J.A.B.	Private	Mathew, Herbert Edward	Fæcal accumulation.
Imperial Yeomanry	Trooper	Alexander, James	Orchitis, N.G.
	Civil Servant	Pearson, Edward	Diarrhœa.
Canadian M.R.	Private	Hobbs, Bedo	Fracture (1031). (a) Radius.
Lumsden's Horse	Lance-Corporal	Campbell, Jno. James	Ague.
1st Royal Sussex	Lance-Corporal	Oak, James	Enteric fever.
Lumsden's Horse	Private	Banks, Edward Nugent	Ague.
S.J.A.B.	Private	Boyd, Manuel Martin	Constipation.
Imperial Yeomanry	Trooper	Gibson, Frank	Rheumatism.
Imperial Yeomanry	Trooper	Galvey, Richard	Diarrhœa.
Imperial Yeomanry	Trooper	Asher, William	Gunshot wound of knee.
Imperial Yeomanry	Sergeant	Friend, Charles	Rheumatism.
Imperial Yeomanry	Trooper	Goodchild, Frank	Contusion, sacral region.
Imperial Yeomanry	Corporal	Dyke, Albert	Gunshot wound of head.
4th Derby	Private	Ward, Bernard	Gunshot wound of neck.
4th Derby	Corporal	Smith, Henry	Gunshot wound of chest.
4th Derby	Corporal	Shuttleworth, Henry	Gunshot wound of neck.
4th Derby	Private	Newman, George	Shell wound.
Border Horse	Scout	M'Pherson, Allan	Pleurisy.
South Province Horse	Corporal	Hood, Richard	Gunshot wound of buttock.
4th A. & S. Highlanders	Private	Brown, Henry	Ague.
Kitchener's Horse	Corporal	Lovell, Leonard	Hernia.
Kitchener's Horse	Trooper	Patterson, John Haywood	Ulcer.
Kitchener's Horse	Trooper	Coincross, Frederick	S.C. Fever.
4th Gordon Highlanders	Private	M'Pherson, George Smith	Debility.
4th Scottish Rifles	Private	Clark, James	Dysentery.

REGIMENT.	RANK.	NAME.	DISEASE.
Roberts' Horse . . .	Private . . .	Barnes, Reginald . . .	Dislocation of left shoulder.
4th Sherwood Foresters . . .	Trooper . . .	Perkins, William . . .	Gonorrhœa.
New Zealand M.R. . . .	Private . . .	Frazer, Duncan . . .	Dislocation of shoulder.
New South Wales M.R. . . .	Private . . .	Grace, Reginald . . .	Rheumatism.
New South Wales M.R. . . .	Private . . .	Lye, George . . .	Hernia.
S.J.A.B. . . .	Private . . .	Squires, David . . .	

APPENDIX T

AT a final meeting of the Committee held on 27th April 1901, the Report, as submitted by the Sub-Committee, was approved, and it was decided to present a copy to all Subscribers, as well as to those who had interested themselves in, and rendered assistance to, the hospital. It was also resolved that any officer or soldier who had been a patient in the hospital should have the privilege of purchasing a copy at cost price. It was further agreed that £500 of the surplus funds should be given to Lady Charles Bentinck's fund for providing warm clothing and comforts to the men still serving in South Africa, and that £600 should be given to the Soldiers' and Sailors' Help Society to endow a bed in perpetuity in the Princess Christian's Homes for Disabled Soldiers, to be designated the "Portland Hospital Bed," and that the remaining funds, after payment of the Report, and incidental expenses, should be given to the same society. Any Subscriber not agreeing to this proposal shall have the option of receiving 20 per cent. of their original subscription (the approximate relative proportion of the unexpended funds) on application to the Secretary.

In recognition of their services in connection with the hospital, His Grace the Duke of Portland, K.G., and Mr J. L. Langman, who, in addition to acting as Honorary

Treasurer of the Portland Hospital, had at his own expense equipped and sent out a field hospital, were made Knights of Grace of the Grand Priory of the Order of the Hospital of St John of Jerusalem of England, and Lady Henry Cavendish Bentinck was made a Lady of Grace.

Surgeon-Colonel Kilkelly, Grenadier Guards, Mr Anthony Bowlby, and Dr Tooth were gazetted as Companions of the Most Distinguished Order of Saint Michael and Saint George.

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